A STUDY OF RURAL POVERTY AND INEQUALITIES IN A DEVELOPED DISTRICT

B. SARVESWARA RAO

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FOREWORD

Ramachandrapuram Taluk in the East Godavari district of Andhra Pradesh which is the subject of this study is one of the well developed agricultural areas of the country in terms of assured irrigation (90 per cent), intensity of cropping (170 per cent), HYV areas (39·7 per cent) and fertiliser use (108 Kg per acre). One would expect the normal negative correlation between development and poverty to be demonstrated in this area. In fact the study throws up the reverse correlation. While for rural Andhra Pradesh the percentage of population below the poverty line (measured by the intake of calories) is 62·14, for the high productivity rural Ramachandrapuram taluk the percentage is 65 per cent. This perverse correlation is further highlighted in that a good agricultural year seems to worsen the poverty profile of the area. While for cultivator households, the bad agricultural years of 1969-70 and 1970-71 plunged 62 to 63·1 of the households below the poverty line, the following good year brought about considerable improvement, leaving only 27 per cent of the households in poverty, in the case of the agricultural labour households, the good year worsens their situation. In 1969-70 77·5 per cent of the households lived in poverty, followed by 79·5 per cent in 1970-71 : the good agricultural seasons of 1971-72 increased the percentage of agricultural households living in poverty to 82·5 per cent.

This means that the poverty condition of the majority of people as analysed in the study is not only an absolute amount, it is a function of the inequality in land distribution and assets holdings. 51·5 per cent of the house-holds operating less than 1 hectare each, cultivated 12·5 percent of the land area, while 8·1 per cent of families in the size groups of 5 hectares and about operated 39·5 per cent of the land. Again 42 per cent of the households owned 3·2 per cent of total assets in the taluk, while 24·1 per cent owned 81·3 per cent, including 8·1 per cent who owned 58·3 per cent of total assets. Consequently there are wide inequalities in income distribution. Among cultivators, 71 per cent of the households earning less than Rs.500 per annum received 22·8 per cent of the total income, while 11·1 per cent

of the families earning Rs.10,000 and above received 8·9 per cent of the total income. Among agricultural labour households most (81·38 per cent) had a per capita annual income of less than Rs.500/- . The other factors contributing to the poverty of the poor, namely family size, unemployment and under employment, discrimination in wage rates paid to adult males, adult females, and children, the low level wages, the high rentals, caste hierarchy, the export of the economic surplus of the area and low overall growth rate of the taluk and the limited possibilities of the agricultural labour households supplementing their low incomes by animal husbandry, household and small scale industry —all these are linked to, if not a function of the distribution of land holdings and assets ownership.

As a consequence, the study sounds some cautionary and even negative notes, until and unless the basic fact of inequalities is tackled. "The impact of any possible expansion of this (small scale) sector of the village economy of the taluk of its poverty profile will be small. We do not therefore expect that the possible expansion of activities allied to agriculture and in the non-agricultural sector will work a significant difference to the income distribution in the taluk (p 127)." "The analysis of the development potential and impact of full utilisation of labour and full adoption of HYV technology of the condition of poverty and inequalities in the taluk provides no basis for optimistic conclusions (p 134)."

And yet the study concludes with a suggested four part development strategy for the region, which is somewhat in the nature of a kind of **Obiter dicta.** The first part refers to a planned programme of industrialisation based on the resources of the various sub areas, along side of transport, training, growth centres —all of which would have a limited impact on absorbing the growing labour surplus of the families living in poverty. The second part which is related to the first is to divert the investment of the economic surplus of the region currently estimated at over Rs. 6 crores per annum to the further development of the region's agricultural, households and small industry, and rural housing. The problem here is that short of compulsory and penal measures such a programme to reinvest within the region its surplus resources will be a function of a broader programme

of socio economic restructuration in which the people will be both decision makers and participants. Further such a restructuration cannot be limited to one taluk ; it to be part of a national policy frame. The third part of the strategy outlines a programme of increased and intensive investment which can counter some of the effects of the poverty condition of the people - family planning, compensation payments to the poor households to increase the holding power of the schools, protected water supply, improved facilities for health, power and fuel supply, a reorganised public works programme and supply of subsidised agricultural inputs to the poor cultivators and labour households to increase employment and earnings. Finally it is the fourth part of the proposed strategy which is the crunch, that is an effective and realisable programme of agrarian reform including protection of tenants against rack renting, an enforceable system of minimum wages, and using the land ceiling act to redistribute land to the poor. It is the crunch because all other parts of the strategy depend on this precondition. It is this which will produce the socio economic restructuration where decisions and participation will be that of the people. The study however, ends with a question mark as to its political feasibility, both in terms of the resistance of the power structure and the inadequacies of the administrative machinery. But if there is one conclusion of the study, it is this - the urgency of agrarian reforms in this as in all parts, of the country, without which more and more families will be slipping into the poverty condition which needs no further studies and documentation.

B. Sarveswara Rao is a Fellow of the Institute and has completed this study during the year. Part II of the study which will be published later has a deal of valuable primary statistical data which has been painstaking by programmes by Sarveswara Rao. I personally feel that the Institute should now move on to dealing with specific aspects and programmes for countering poverty - which involves a multi disciplinary and interdisciplinary dimension. This is the way forward to which this study is a clear pointer.

Malcolm S Adiseshiah

PREFACE

This is a study about the nature and causes of poverty and inequalities in one of the most developed areas in Costal Andhra Pradesh. The area selected for investgation and analysis is the rural area of the taluk of Ramachandrapuram in the East Godavari District. Irrigated rice cultivation has been a dominating feature of its economy for a long time, and in recent years, further advances in technology based on High Yielding Variety seeds and chemical fertilisers led to significant increases in crop yields and resource productivity. Attention is thus focussed in the present study on the dimensions and causes of poverty in the context of agricultural progress and prosperity.

In 1976, when I was still the Director of the Agro-Economic Research Centre, Waltair, it struck me that the wealth of data collected by the Centre in the course of several investigations in the district could be analysed further with advantage to throw light on the problems of poverty and inequalities in the context of agricultural development and in a regional setting. I also felt that the data available for the area and the earlier studies of the Centre concerning farmers, landless labourers, new technology, etc., provided a good basis for integrating micro and macro economic analysis in a meaningful way at the level of the taluk. The present study is a result of this urge.

The socio-economic profiles of cultivators and landless labourers who together constitute ninety per cent of the population of the area, and the picture of the economy of the taluk as a whole, provided the basis for the attempt to diagnose the poverty condition and outline an anti-poverty strategy for the area. In Chapter III attention is paid to the measurement of the magnitude and intensity of poverty and to the nature of inequalities in income and wealth. The profiles of the low income farmers and landless labourers are delineated in considerable detail in Chapter IV. In Chapter V, the volume and pattern of savings and investments, the economic surplus and export of capital are estimated for the taluk. In the last chapter the causes of poverty in the area are

examined in the light of an appropriate analytical framework and an attempt is made to bring out the implications of the study for attack against poverty.

The agricultural situation in the area reflects advanced technology and high productivity, with a large volume of output and net marketed surplus of food grains. The socio-economic situation reflects very low land-man ratio, extremely unequal distribution of cultivator holdings, heavy incidence of tenancy, large proportion of non-cultivating labour population, and caste as an important feature of non-farm household industry and other occupations. The economic surplus of the taluk is significant with high saving-income ratio, but the major part is not reinvested within the taluk for adding to productive capacity. The total situation is thus found to be one of acute poverty and under-employment in the midst of plenty. The outline of anti-poverty strategy is indicated against this background. But, no elaboration of the content and specifics of the strategy is attempted as it is outside the scope of this study.

The study is divided into two parts. Part I presents the analysis, findings and conclusions. Part II gives only the detailed tables presenting the household information according to per capita income groups and according to the classification of households below and above the poverty line.

For critical comments on the first draft of this study and for appreciating my venture, I am extremely grateful to Dr. Malcolm S. Adiseshiah, M.L. Dantwala, V.M. Dandekar, Guy Hunter, Paul Devitte, Hans. P. Binswanger, R. Radhakrishnan, C. Hanumantha Rao, V. M. Rao and V.V. Bhanoji Rao.

I wish to express my deep appreciation of the help and co-operation extended to me by T.V.S. Rao, A.G. Prasad and other members of the staff of the Agro-Economic Research Centre. They worked hard over an extended period of time and helped me in numerous ways. I have also received considerable help from my colleagues in the Department of Economics and my thanks are due to them. I am also much indebted to M. Sanyasi Rao, Stenographer in the Centre and K. Yugandhara Rao, Clerk/cum/Typist in the Department, for their able assistance.

Finally, I wish to express my deep gratitude to Dr. Malcolm S. Adiseshiah, Director of the Madras Institute of Development Studies, Madras, for permitting me to work on this subject as a Fellow of the Institute. I am also grateful to Sri M. R. Appa Row, Vice-Chancellor, Andhra University, for giving me facilities to work in the Department of Economics.

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CHAPTER 1

INTRODUCTION, OBJECTIVES AND METHODOLOGY

1.01. Introduction

Poverty and inequalities of income and wealth are now major issues of concern in the developing countries. These problems have not diminished in their enormity, pervasiveness or persistence in spite of two to three decades of development, planning and development experience, and achievement of fairly high growth rates in at least some of the countries.[1] Economic growth has brought little or no benefit to a large proportion of the populations, and the different regions and socio-economic groups within the countries have shared very unequally whatever growth has been achieved. Political leaders, policy-makers and planners, and social scientists have therefore begun to give serious reconsideration to the complex issues of poverty and inequality, the processes of growth and distribution, the aims and strategies of development planning and the relevance and effectiveness of various policy instruments.

The poverty problem in India is a more acute and challenging problem because of the fact that the number of the poor in the country is overwhelmingly large, and they live mainly in a large number of villages and towns scattered over the vast country under conditions of semi-starvation and malnutrition, ill-health and squalor. Abject poverty in the country is neither a new phenomenon nor has it suddenly appeared.[2] There is greater awareness of the problem in the country now because of the wide-spread feeling that, while development planning has led to some significant achievements in building social overheads and in raising agricultural and industrial production, its impact on the quality of life of the poor has been very small.[3] This experience has inevitably led to a new perception of the magnitude and intensity

of the poverty problem and need for urgent action for mitigating the condition. In the recent past, attack against poverty has become an important element in the aims and strategies of development planning and Governmental action.[4] To the economists and the other social scientists understanding the phenomenon in all its aspects and facets has also become a priority research need and activity.

The problem of poverty in India received well focussed attention in the hands of Dandekar and Rath in their important study 'Poverty in India'.[5] For the first time an attempt was made to measure the dimensions of poverty in the rural and urban areas and in the different States in the country on the basis of the available NSS and other data, raising a number of methodological issues for debate and to examine the various strategies for attack against poverty. A number of earlier studies of course drew attention to the grave inequalities in the distribution of land rights and the poverty of peasants and non-cultivating labour classes, and in the 1960s patterns of consumption and income distribution also received a great deal of attention by research workers. But Dandekar and Rath have given a new dimension to the study of the poverty in India and as a consequence, research on the themes of poverty and inequalities has become more intensified.

This does not imply that before the 1970s, political and intellectual awareness of the magnitude of poverty and its social and psychological consequences, was either dim or absent. Nor does it mean that there was lack of concern for the poor. The prevailing perspective, however, was that poverty was essentially a legacy of the past colonial era of exploitation by a foreign power and the remedy has to be found basically in rapid industrialisation and agricultural development and achievement of high rate of economic growth through broad-based socio-economic planning and mobilisation of domestic resources and with necessary foreign assistance.[6] It was felt that the spread effects of industrialisation and economic growth would be strong enough to bring about a gradual rise in the standard of living of the people and mitigation of poverty. This basic strategy of industrialisation and agricultural growth was of course to be buttressed by redistributive measures such as land reform, support to household industry and other

measures to promote social justice. The possibility of economic growth adding to and strengthening the inherited structure of socio-economic inequalities and regional imbalances was recognised. This led to somewhat more radical approaches in the 1960's to land reform and support to the weaker sections in society through special employment schemes and other programmes. But, the approach to planning continued to be basically oriented to achievement of high rates of investment and growth. One must admit that there was also some kind of ambivalence in the attitudes towards redistributive measures. There was a firm commitment to a new social order based on equality and social justice ; but, there was also a widely held belief that a certain increase in inequalities was an inevitable element of the growth process and that radical redistributive measures would seriously reduce saving and weaken incentives. For a brief while, before the social and economic consequences of the Green Revolution came to be analysed in detail, there was even an emphasis on remedies of an essentially technocratic nature designed to promote efficiency and production.[7] It is pertinent in this connection to recall what Pitambar Pant has said in 1962 : " Such widespread poverty is a challenge which no society in modern times can afford to ignore for long. It must be eradicated both on humanitarian grounds and as an essential condition for orderly progress. No programme or policy which fails to alleviate the condition of the poor appreciably can hope for the necessary measure of public co-operation and political support in a mature democracy. The central concern of our planning has to be the removal of poverty as early as possible. The stage has now come when we should sharply focus our efforts on providing an assured minimum income to every citizen of the country within a reasonable period of time. Progressively the minimum itself should be raised as development goes a pace".[8] The strategy proposed by Pitambar Pant for removal of poverty however, ruled out any important change in the pattern of income, distribution and emphasised the need for attaining quickly a growth rate of 7 per cent per annum.[9]

Following the significant shift in thinking about these matters in the 1970s, there is more emphasis now on making attack on poverty an integral part of development planning and strategy

and redirecting investment and technological choices with a view to achieving substantial mitigation of poverty and regional imbalances along with adequate growth.[10] In this context emphasis is also laid on researches for better and fuller understanding of the dimensions of poverty and its nature. As Prof. Bardhan said, there is now more need for anatomy of poverty, *i.e.*, for intensive studies of poverty profiles in the various regions in the country besides attempts to estimate the magnitude of poverty. More attention has to be paid to micro-level studies and detailed analysis of the characteristics of the poor and non-poor households relating to age-sex composition, family size, activity status, occupational diversification, levels of education, nature and intensity of employment, sources of income, consumption and expenditure patterns, indebtedness, etc. One way of doing this is to re-examine the data available in the socio-economic surveys carried out in the past at the State and National levels or at lower levels with a view to throw light on the nature and dimensions of poverty and the kinds of strategies relevant to the eradication of poverty. We should expect that poverty profiles will vary from region to region, and in diagnosing poverty we must take note of the fact that the relative importance of casual factors will vary. The strategies for elimination of poverty at the level of the region and in relation to specific target groups have to be carefully worked out. The present study of Rural Poverty and Inequalities in a Developed District is undertaken against this background of research need in the country for focussing on well-defined regions and target groups in analysing the poverty phenomenon.[12] The district selected for study may be considered as broadly typical of Coastal Andhra Pradesh and other agriculturally advanced regions in the eastern and southern parts of India.

1.02. Scope and Purpose of the Present Study

In this study of rural poverty, an attempt is made to analyse the phenomenon as it presents itself in an agriculturally advanced and highly prosperous region, *viz.*, the East Godavari district in Andhra Pradesh. This attempt may be regarded as a sequel or supplement to the studies in Incomes, Savings and Investments of Cultivator and Agricultural Labour Households in the district,

covering a period of 3 years, 1969-70, to 1971-72, carried out earlier by the Agro-Economic Research Centre, Waltair (hereafter referred to as I.S.I. Studies).[18]

The principal aim of the I.S.I. Studies was to assess the impact of agricultural growth and prosperity on savings, investment and consumption in the rural areas on the basis of a sample survey of cultivator households and non-cultivating agricultural labour households. The major concern of the present study is to examine the phenomenon of rural poverty and inequalities of income and wealth in the same area covered by the I.S.I. Study. For this purpose, we have made extensive use of not only the findings of the I.S.I. Studies but also the data available in the 1961 and 1971 Census Reports, the statistical publications of the Government of Andhra Pradesh, and information furnished by the authorities about the district and the taluk. More specifically, the aims of this study are: (1) to identify the poor households among the cultivator and non-cultivating agricultural labour households and study their socio-economic characteristics, (2) to make estimates of savings, investment and employment for them and for the taluk as a whole, (3) to estimate the economic surplus of the taluk and its utilisation, (4) to analyse the causes of poverty, and finally, (5) to outline an anti-poverty strategy for the area.

The choice of the area for the present study rested on two considerations. One is the availability of detailed raw data for representative samples of cultivator households and agricultural labour households in the taluk, both categories of households covering 90% of the population, apart from the familiarity of the author with the region. Further it was felt that the area provides us with a model for analysis of regional poverty in which some important variables can be kept under control. In respect of agro-climatic conditions, irrigation and cropping pattern, socio-cultural factors, and access to new technology and institutional facilities for the small, medium and large farmers, the taluk presents a picture of high degree of homogeneity. And yet, as the later chapters will show, the taluk is characterised by high incidence of poverty and extremely unequal distribution of incomes and wealth.

1.03. The Selection of the East Godavari District and the Ramachandrapuram Taluk for the Study

The East Godavari district is one of the agriculturally progressive and well-developed districts in the Coastal Region of Andhra Pradesh. It has a strong agricultural resource base with more than 65% of the net area sown having assured irrigation facilities. Paddy and sugarcane are the most important crops raised in the district. The district has made notable advances in the recent years in adopting new technology for its agricultural growth. The district has also made notable progress in the development of the secondary and tertiary sectors. According to a study of the State Planning Department,[14] the combined index number of regional development with 100 as the base for the whole of the State of Andhra Pradesh shows that the value of index for the district was 152·6 in 1961 and it ranked as number three in the State of Andhra Pradesh. The index number of gross value of output per net area sown for the same year was 207.2 and according to this index the district ranked as number two in the State, number one being the district of Krishna.

A recent study of the Institutional Framework for Agricultural Development also clearly underlines the strong position of the district in respect of resource base and infrastructural facilities, levels of input use and resource productivity.[15] A districtwise all-India study of Regional Disparities in the level of Development made by Dr. M. N. Pal[16] ranks the East Godavari district as one of the highly developed districts in India in respect of several indices, *viz.*, index of agricultural development, index of non-agricultural development, index of development in secondary activities, index of development in tertiary activities and index of urbanism. The Perspective Plan for Coastal Andhra Pradesh prepared by the State Planning Department (Vol. I : Resource Inventory) also mentions that the East Godavari district has the highest number of advanced blocks with most of the indices of development showing high values.[17]

Two of these Blocks, namely, the Rayavaram and Kapileswarapuram Panchayat Blocks, constitute the Ramachandrapuram taluk. More than 94% of the irrigated area of the taluk is under assured canal irrigation and is also irrigated by wells which are

largely mechanised. The intensity of cropping is more than 170% and the gross irrigated area is more than 90% of the gross cropped area. The major crop of the taluk is rice and a high proportion of the area, both in the Kharif and Rabi seasons has been brought under HYVs. Sugarcane and pulses are also important crops of the area. A sample survey of the participants and non-participants in the HYV Programme during 1968-69 in the taluk,[18] for instance, showed that the HYV Programme covered 21% of the farmers and 19% of the area under paddy in the Kharif season, and 50% of the farmers and 54% of the area in the Rabi season. The average reported yields of rice came to 17·8 quintals per acre in the Kharif season and 23.45 quintals in the Rabi season. The Table 1.01 shows the position of the taluk as compared with the district in respect of its endowment of natural resources, and infrastructure and institutional support for agriculture. The I.S.I. Studies already referred to have also fully brought out the nature of agricultural prosperity in the taluk. For instance, the average income from cultivation per cultivator households was Rs. 2,217 (average for the 3 years, 1969-70 to 1971-72). Income from other agricultural activities came to Rs. 1,235 and income from non-agricultural activities to Rs. 437. Thus, the total income per cultivator household worked out to be Rs. 3,889. Again, the farm business income per hectare calculated on Cost A_2 basis came to Rs. 1,281 for the sample households (average for the 3 years). A better indication of the progressive nature of agriculture in the taluk can be had from the value of inputs per hectare which came to Rs. 2,502 on Cost A_2 basis including the cost of fertilisers amounting to Rs. 363.

Table 1.01. Selected Indicators of Development in the East Godavari District and the Rayavaram Block

Selected Indicators	Unit	Ex East Godavari District (1969-70)	Rayavaram Block (1971-72)
1	2	3	4
Resource Base and Infrastructure :			
1. Cultivated land per agricultural worker	Acres	1·37	1·23
2. % of net area irrigated to net area sown	%	62·6	100·0
3. Tractors per 100 acres of cultivated land	Nos.	0·039	0·180
4. Irrigation equipment (oil engines and electric motors) per 100 acres of cultivated land	Nos.	0·3641	1·58
5. % of electrified villages and towns to the total number of villages and towns	%	41·1	98·0
6. % of members in primary agricultural credit and multi-purpose Co-operatives to total agricultural wrokers	%	28·1	31·1
Input Use :			
1. % of gross area irrigated to gross cropped area	%	63·3	86·6
2. % area under H.Y.V. to gross cropped area	%	16·4	39·7
3. Intensity of cropping	%	131·8	198·7
4. % of area under commercial to total cropped area	%	15·9	17·8
5. Fertiliser use per acre cropped	Kg	92·9	108·0
6. Credit issued by primary agricultural credit and multi-purpose co-operatives per acre cropped	Rs.	30·36	49·59

Resource Productivity :

1. Value of agricultural produce per acre cultivated	Rs.	442·65	1493·56
2. Value of agricultural produce per agricultural workers	Rs.	608·66	1837·08

Source : Institutional Framework for Agricultural Development, by B. Sarveswara Rao, T. V. S. Rao and D. S. Somayajulu, a paper published in *Serving the Small Farmer : Policy Choices in Indian Agricultural Development*, Croom Helm, London, 1974.

1.04. Design of the Sample Survey and Methodology

The design of the sample survey of the taluk as followed for the I.S.I. Studies may be briefly explained. In each of the two blocks of the taluk, 5 villages were selected with probability proportional to the cultivating population, making use of the 1961 Census data for this purpose. In each one of the selected villages, the cultivator households and landless agricultural labour households were separately listed and the following procedure was adopted for the selection of households for investigation. The cultivator households of each village were arranged in ascending order of area operated by each household, divided into 5 equal groups and then two households were selected at random from each group. In the case of the landless agricultural labour households, 4 households were selected at random from the list of the same households in each village. Thus, the study covered a sample of 100 cultivator households and 40 landless agricultural labour households drawn from the 10 selected villages. The reference period for the investigation was a period of 3 agricultural years commencing from July, 1969, and data were collected from the same sample households in 2 rounds during the first year of the reference period and in 3 or 4 rounds for the later two years of the reference period. The data collected relate to the following items : (i) demographic particulars, including workforce, (ii) land particulars, (iii) assets, (iv) inputs for crop production, (v) production and disposal of crops, (vi) income earned from different sources other than agriculture, (vii) employment, (viii) acquisition and disposal of physical assets, (ix) investment in buildings, business, manufacture, etc., (x) investment in shares, bonds, etc., (xi) lendings

and borrowings, (xii) consumption expenditure and consumption patterns. The data collected for the selected cultivator households and agricultural labour households are analysed and presented according to household income and asset groups. In the present study, the households are regrouped according to per capita income, and the socio-economic information collected is reexamined on this basis with a view to throw light on the constrasts between the poor and non-poor households in regard to various socio-economic characteristics. Some additional information was also collected from the sample households and the Block authorities in 1975 for the purpose of the study. An attempt was also made to estimate the incidence of poverty in the taluk as a whole and to look into the important macro-economic aspects of the taluk such as savings, investment, export of capital and employment. For this purpose, we have made also extensive use of the taluk data available in secondary sources. The methods of estimating these magnitudes for the taluk as a whole are explained later in Chapter V.

1.05. The Concept of Poverty and Determination of the Poverty Line

Following the practice of economists in this country, poverty is defined for the purpose of this study as absolute poverty or deficiency in terms of calorie intake. A poor family is one which is unable to provide itself with a minimum level of nutritional energy in terms of calories, on a per capita basis, given the level of income and the pattern of consumption to which it is accustomed.[19] This concept of poverty is much narrower than the concept of deficiency in food, clothing, education and other essential requirements of a socially acceptable standard of living. According to the estimates of Dandekar and Rath, the poverty level of income for the rural population of Andhra Pradesh was Rs. 236 in 1961-62, the energy equivalent of daily diet at this level of per capita annual consumption expenditure exceeding 2,250 calories.[20] The estimate of rural population below this level was 62·14 per cent. Accepting this as the income measure of poverty, adjustment was made for the rise in prices since 1961-62 in order to arrive at the poverty level income for each one of the 3 years of study. The estimates thus arrived at are given in Table 1.02 in the next page.

Table 1.02—Poverty Cut-off Levels of Income.

Year	Index No. of wholesale prices* (All commodities)	Poverty-line** (Annual consumption expenditure Rs.	Monthly value Rs.	Col. 3 as % of State per capita incomeg	Col. 3 as of % taluk per capita income & (Rural)
1	2	3	4	5	6
1961–62	100·0	236·00	19·66	78·67	—
1969–70	171·6	405·00	33·75	77·00	35·62
1970–71	181·1	427·00	35·58	74·63	37·55
1971–72	188·4	445·00	37·08	73·41	39·44

*Source : *R.B.I. Bulletin, January,* 1974, *Vol.* 28, *No.* 1.
**The figures are rounded to the nearest Rupee.
*Source : *Bureau of Economics & Statistics, Govt. of A.P.*
& expressed as a percentage of average income for the three year period (*see* Chapter V).

If a per capita monthly consumer expenditure of Rs. 20 at 1960-61 prices is deemed to be the national minimum, it would come to about the same poverty level income in each year of study as given in the table.

The poverty level income of Rs. 236 in 1961-62 for the rural population of Andhra Pradesh increased to Rs. 405 in 1969-70, Rs. 427 in 1970-71 and Rs. 445 in 1971-72. It amounted to more than 70 per cent of the State per capita income, but only to 35 to 40 per cent of the taluk income (rural area), which reflects the agricultural prosperity of the area. On the basis of these poverty levels of income for the 3 years of study, the proportions of households below the poverty line among the cultivator and agricultural labour households are separately estimated, and then the incidence of poverty in the taluk as a whole has been analysed.

Due to limitations of data no attempt was made to determine independently the poverty level of expenditure (income) on the basis of the calorie value of food consumed by the sample households. However, an analysis of data pertaining to the consumption expenditure and calorie equivalent of the diet for the sample culti-

vator households for the year 1971-72, shows that the method followed above in determining the poverty line was fairly dependable.

The following Table gives the distribution of calorie and protein intake per capita according to per capita expenditure groups (fractile groups) for the sample cultivator households for the year 1971-72.

Table 1.03—Calorie-in-take according to Expenditure classes

Expenditure class (per capita per day) (Rs.) 1	Expenditure per capita per day (Rs.) 2	Calorie intake per capita per day 3	Protein in take per capita per day (gms.) 4
Less than 0·63	0·53	1068·2	26·2
0·63—0·78	0·71	1384·8	35·9
0·78—0·88	0·85	1659·2	41·4
0·88—0·98	0·93	1728·9	44·7
0·98—1·05	1·02	2000·2	50·7
1·05—1·18	1·13	2067·8	54·8
1·18—1·31	1·23	2135·0	55·6
1·31—1·73	1·47	2301·6	60·9
1·73—2·65	2·12	2493·1	72·6
Above 2·65	3·74	3651·4	100·7
Overall	1·31	1979·72	52·54

Based on 90% of the food expenditure with complete coverage of cereals and pulses, and Akroyd Tables of Food Values.

Both calorie intake and protein intake show a systematic increase as the per capita expenditure increases. The minimum calorie need is satisfied, as it is evident from the Table (1.03), when a household reaches the per capita expenditure class of Rs. 1·18-1.31. The average annual expenditure in this class comes to Rs. 443 which is almost the same as the poverty level of income arrived at earlier.[21]

CHAPTER II

DEMOGRAPHIC FEATURES AND ECONOMY OF THE SELECTED TALUK AND VILLAGES

2.01. Demographic Features

The Ramachandrapuram taluk of the East Godavari district, as per the 1961 Census, consisted of 109 villages distributed between two Panchayat Samiti areas or Blocks, *viz.*, Rayavaram and Kapileswarapuram, and 4 towns. In the 1971 Population Census, two of the towns, *viz.*, Draksharama and Anaparti were included in the list of villages. Necessary adjustments are made in 1971 Census data to make the socio-economic characteristics of the Taluk and villages as described in the 1961 Census comparable. As shown in Table 2·01, the total population of the taluk increased from 3·78 lakhs to 4·41 lakhs during the decade 1961 to 1971, the annual growth rate being 1·54%. The rural population constituted 82·1% in 1961 and 81·2% in 1971, and increased at an annual rate of 1·43% during the decade as compared with the growth rate of 2·06% for the urban population. The population of Scheduled Castes and Scheduled Tribes constituted 13.80% in 1961 and 12·92% in 1971, the growth rate being less than 1% (Table 2·02). As regards the literacy rates there was considerable improvement between 1961 and 1971 (Table 2.03). 34·3% of the males were literate and educated in 1961 and the percentage increased to 38·9 in 1971. The percentage of literate and educated females increased from 21·5% in 1961 to 27·1% in 1971. A high degree of illiteracy is a major weakness of the social system of the taluk.

2.02. Household Categories and Size (based on 20% sample. 1961 Census)

As given in Table 2.04 the distribution of households in the rural areas of the taluk in 1961 shows that 38·9% were cultivator households, 5·6% were households engaged both in cultivation

Table 2.01—Population of Ramachandrapuram Taluk according to 1961 and 1971 Census.

Item	1961	%	1971	%	Growth (Compound) (Annual)
1	2	3	4	5	6
Rural :					
1. No. of Villages	109	—	109	—	—
2. No. of Houses	58869	82·06	65656	80·28	—
3. No. of Households	68954	82·24	78788	81·33	—
Population :					
4. Males	154659	82·12	178511	81·29	1·44
5. Females	155799	82·08	179196	81·06	1·41
6. Total	310458	82·10	357707	81·17	1·43
Urban :					
7. No. of Towns*	4	—	4	—	—
8. No. of Houses	12871	17·94	16125	19·72	—
9. No. of Households	14885	17·76	18091	18·67	—
Population :					
10. Males	33671	17·88	41076	18·71	2·01
11. Females	34008	17·92	41881	18·94	2·10
12. Total	67679	17·90	82957	18·83	2·06
Total (Rural plus Urban) :					
13. No. of Houses	71740	100·00	81781	100·00	—
14. No. of Households	83839	100·00	96879	100·00	—
Population :					
15. Males	188330	100·00	219587	100·00	1·55
16. Females	189807	100·00	221077	100·00	1·54
17. Total	378137	100·00	440664	100·00	1·54

* One town enumerated in 1961 includes 4 villages. Hence, the 1961 Census enumeration of Villages plus Towns comes to a total 117. Necessary adjustments are made in presenting the 1971 data.

Table 2.02—Scheduled Caste and Scheduled Tribe Population — Ramachandrapuram Taluk

Year		Scheduled Castes				Scheduled Tribes			
		Males	Females	% of taluH	Total population	Males	Females	Total	% of taluh populatioun
1		2	3	4	5	6	7	8	9
1961 :	Rural	22394	22226	44620	14·37	625	623	1248	0·40
	Urban	3030	2946	5776	8·83	136	161	297	0·44
	Total	25424	25172	50596	13·38	761	784	1545	0·42
1971 :	Rural	24280	23922	48202	13·47	771	755	1526	0·43
	Urban	3420	3466	6886	8·30	172	169	341	0·41
	Total	27700	27388	55088	12.50	943	924	1867	0·42
1961-1971	**Growth Rates:**								
	Rural	0·81	0·74	0·77		2·12	1·94	2·03	
	Urban	1·22	1·64	1·43		2·38	0·48	1·39	
	Total	0·86	0·85	0·85		2·17	1·66	1·91	

Table 2.03—Literate and Educated Persons — Ramachandrapuram Taluk

Year		Literate and Educated males	Percentage in total male population	Literate and Educated Females	Percentage in total females population	Total literate and educated persons	Percentage in total
1		2	3	4	5	6	7
1961 :	Rural	50146	32·4	31092	20·0	81238	26·2
	Urban	14368	42·7	8835	26·0	23203	34·3
	Total	64514	34·3	39927	21·0	104441	27·6
1971 :	Rural	66683	37·3	46742	26·1	113425	31·7
	Urban	18708	45·5	13097	31·3	31805	38·3
	Total	85391	38·9	59839	27·1	145230	32·9

Table 2.04—Distribution of Households According to 1961 Census (Based on 20% sample of Households)

Class	Distribution of Households in Rural Area							
	Andhra Pradesh		East Godavari District				Ramachandrapuram Taluk	
	No of house-holds	%	No of house-holds	%	Popu-lation	% Average size of house-hold	No of house-holds	%
1	2	3	4	5	6	7	8	9
Cultivation only	646645	51·82	34860	37·13 }	210036	5·22	5363	38·92
Cultivation and household industry	104080	8·34	5392	5·74 }			767	5·57
Household industry only	82627	6·62	7925	8·44	35990	4·54	1044	7·58
Others	414616	33·22	45701	48·69	175603	3·84	6605	47·93
Total	1247968	100·00	93878	100 00	421629	4·49	13779	100·00

and household industry, 7·6% were households engaged in household industry only, and 47·9% were the remaining households. The households engaged in cultivation thus, constituted 44.5% of the total number of households in the rural area of the taluk.[2] It is reasonable to assume that 45% of the rural households would be non-cultivating labour households.[3] The table also shows the differences in regard to the average size of the household among the four categories of households. Taking the cultivator households and households having cultivation and household industry together into account, the average size of a household was found to be 5·22. The average size of household engaged in household industry only, was found to be 4·54. For the remaining households which include mainly non-cultivating labour households, the average size was 3·84.

2.03. Workers in different categories of Occupations

The working population of the taluk including both rural and urban areas was 47·06% of the total population in 1961, (Table 2.05), the participation rate for males being 64·8% and for females 29·4%. The participation rate was 47·9% in the rural areas and 43·0% in the urban areas. The number of workers in the 3 major occupations taken together in the rural area, *viz.*, cultivation, agricultural labour and household industry, constituted 80·8% of the total number of workers. The break-down of the total number of workers by principal work or occupation was as follows :

	%
Cultivation	29·0
Agricultural labour	39·9
Household industry	11·9
Others	19·2
	100·0

One of the noticeable features of the working population of the taluk, which is also true of the district, was the high percentage of agricultural labourers in the total working population, being 40% in the rural area and 37·4% in the rural and urban areas taken together.

There are serious difficulties in comparing the data regarding working population as given in the 1961 Census and in 1971 Census because of a change in the definition of 'worker' between the two Censuses.[4] In the 1961 Census a person was treated as worker if he was engaged in productive work whether he derived income or not. In respect of seasonal work like cultivation, livestock keeping, etc., if the person had some regular work for more than one hour a day throughout the greater part of the working season, he was recorded as a worker. The definition of a worker is thus said to be conceived "liberally" in the 1961 Census. In the 1971 Census, a worker was defined as a person whose *main activity* was participation in any economically productive work by physical or mental activity. Work involves not only actual work but effective supervision and direction of work. In the case of regular worker in trade, profession, service, etc., if a person had participated in any such work on any one of the days during the reference period and if he was economically active in the week prior to enumeration, this was recorded as his main activity. In the case of work which is seasonal in nature such as in the case of cultivation, etc., a person's main activity was ascertained with reference to such work in the last one year even if he was not economically active in the week prior to enumeration. The change in the difinition of worker in 1971 led to a considerable decrease in the proportion of the working population between 1961 and 1971. In 1961, even marginal workers were treated as workers while in 1971 only those who were engaged for *most of the time* in productive work were treated as workers. There is thus considerable difficulty in comparing the 1971 Census data with the 1961 Census data regarding working population. The major changes in the rural working population of the taluk between 1961 and 1971 are summarised in the following pages (*See* Tables 2.05 and 2.06).

Table 2.05—Workers and Non-Workers in Ramachandrapuram Taluk According to 1961 Census

Name of the activity	Rural			Urban			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
1	2	3	4	5	6	7	8	9	10
Total Workers :	101892	46946	148838	20198	8924	29122	122090	55870	177960
	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)
1 Cultivation	37102	6128	43230	3727	526	4253	40829	6654	47483
	(36·42)	(13·05)	(29·05)	(18·46)	(5·90)	(14·60)	(33·45)	(11·91)	(26·68)
2 Agricultural Labourers	32752	26562	59314	3695	3560	7255	36447	30122	66569
	(32·14)	(56·58)	(39·85)	(18·30)	(39·90)	(24·92)	(29·86)	(53·91)	(37·41)
3 Mining, etc	3994	204	4198	746	37	783	4740	241	4981
	(3·92)	(0·43)	(2·82)	(3·69)	(0·41)	(2·69)	(3·88)	(0·43)	(2·80)
4 Household Industry	10565	7073	17638	2175	1972	4147	12740	9045	21785
	(10·37)	(15·07)	(11·85)	(10·77)	(22·10)	(14·24)	(10·43)	(16·19)	(12·24)
5. Manufacturing, etc	2765	1125	3890	2281	516	2797	5046	1641	6687
	(2·71)	(2·40)	(2·61)	(11·29)	(5·78)	(9·60)	(41·3)	(2·94)	(3·76)
6 Construction	898	56	954	433	3	436	1331	59	1390
	(0·88)	(0·12)	(0·64)	(2·14)	(0·03)	(1·50)	(1·09)	(0·11)	(0·78)
7. Trade, Commerce, etc .	4289	1608	5897	2614	356	2970	6903	1964	8867
	(4·21)	(3·43)	(3·96)	(12·94)	(3·99)	(10·20)	(5·65)	(3·52)	(4·98)
8. Transport, Storage, etc.	1269	11	1280	762	11	773	2031	22	2053
	(1·25)	(0·02)	(0·86)	(3·77)	(0·12)	(2·65)	(1·66)	(0·04)	(1·15)
9. Other Services	8258	4179	12437	3765	1943	5708	12023	6122	18145
	(8·10)	(8·90)	(8·36)	(18·64)	(21·77)	(19·60)	(9·85)	(10·95)	(10·20)
10. **Non-Workers :**	52767	108853	161620	13473	25084	38557	66240	133937	200177
11. *Participation* rate (%)	65·88	30·13	47·94	59·99	26·24	43·03	64·93	29·44	47·06

N.B. : Figures in brackets *indicate percentages to total workers*

Table 2.06—Workers and Non-Workers in Ramachandrapuram Taluk According to 1971 Census

Name of the activity	Rural			Urban			Total		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
1	2	3	4	5	6	7	8	9	10
Total Workers :	110463	30084	140547	23324	5763	29087	133787	35847	169634
	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)	(100·00)
1. Cultivation	34743	1077	35820	4029	69	4098	38772	1146	39918
	(31·45)	(3·58)	(25·49)	(17·27)	(1·20)	(14·09)	(28·98)	(3·20)	(23·53)
2. Agrilcultural Labourers	46071	23392	69463	6696	3398	10094	52767	26790	79557
	(41·71)	(77·76)	(49·43)	(28·70)	(58·96)	(34·7)	(39·44)	(74·73)	(46·9)
3. Mining, etc.	3809	250	4059	561	42	603	4370	292	4662
	(3·45)	(0·83)	(2·89)	(2·41)	(0·73)	(2·07)	(3·27)	(0·81)	(2·75)
4. Household Industry	6209	1356	7565	1833	708	2541	8042	2064	10106
	(5·62)	(4·51)	(5·38)	(7·86)	(12·28)	(8·74)	(6·01)	(5·76)	(5·96)
5. Manufacturing, etc.	4036	551	4587	2477	420	2897	6513	971	7484
	(3·65)	(1·83)	(3·26)	(10·62)	(7·29)	(9·96)	(4·87)	(2·71)	(4·41)
6. Construction	789	30	819	582	—	582	1371	30	1401
	(0·71)	(0·10)	(0·58)	(2·50)	—	(2·00)	(1·02)	(0·08)	(0·83)
7. Trade &Commerce	5366	663	6029	3316	243	3559	8682	906	9588
	(4·86)	(2·20)	(4·27)	(14·22)	(4·22)	(12·24)	(6·49)	(2·53)	(5·65)
8. Transport, etc.	1678	94	1772	1018	15	1033	2696	109	2805
	(1·52)	(0·31)	(1·26)	(4·36)	(0·26)	(3·55)	(2·02)	(0·30)	(1·65)
9. Other Services	7762	2671	10433	2812	868	3680	10574	3539	14113
	(7·03)	(8·88)	(7·42)	(12·06)	(15·06)	(12·65)	(7·90)	(9·88)	(8·32)
10. **Non-Workers :**	68048	149112	217160	17752	36118	53870	85800	185230	271030
11. **Participation Rate (%)**	61·88	16·78	39·29	56·78	13·76	35·06	60·93	16·21	38·50

N.B. : Figures in brackets indicate percentage to total workers.

	1961	1971
Participation rate :		
Males	65·9%	61·9%
Females	30·1%	16·8%
Cultivators :		
Males	36·4%	31·5%
Females	13·1%	3·6%
Household Industry :		
Males	10·4%	5·6%
Females	15·1%	4·5%
Agricultural Labourers :		
Males	32·1%	41·7%
Females	56·6%	77·8%

The participation rate of females declined from 30·1% to 16·8% and of males from 65·9% to 61·9% between the two Census years. But, the proportion of agricultural labourers in the total male working population increased from 32·1% to 41·7% and the proportion of female agricultural labourers in the total female working population increased from 56·6% to 77·8%. The change in the definition of worker not only led to considerable decline in the total working population of the taluk but also to significant shift in the occupational distribution of the working population from the categories of cultivation and household industry to the category of agricultural labourers.

2.04. Cropping Pattern and Yields

The taluk statistics published by the Bureau of Economics and Statistics for the year 1971-72 show that the net area sown in the taluk was 1·36 lakh acres and the total cropped area was 2·61 lakh acres (Table 2·07). 85·9% of the gross cropped area was under rice and 91·6% of the total gross cropped area was under foodgrains. The total area under all food crops, was 96·8%. Since the net area irrigated constitutes a high proportion of the tne area sown, more than 94%, the intensity of cultivation also is

naturally high. The gross cropped area came to nearly 170% of the net area sown. Most of the land and water resources available are used for growing rice and other food crops. (Tables 2.07 , 2.08 and 2.09). As already mentioned, the taluk is agriculturally an advanced area and hence, the yield rates of cropl are also high (See Table 2.09). The per acre value of agriculturia output in 1971-72 was estimated as Rs. 1,493 and output per agrls cultural worker as Rs. 1,837[5]. The high values of output pe. acre and per agricultural worker must, however, be taken in con. junction with the fact that the per capita cultivated area in tha year 1971-72, according to the Taluk Statistics, was 0·31 acre only (net area sown divided by total population of the taluk,) and the cultivated area per agricultural worker (cultivators+agriculturar labourers) was 1·30 acres.

Table 2.07—Gross Area Under Important Crops of Ramachandrapuram Taluk 1971-72.

(In acres)

Crop	Acreage	% to total cropped area
1	2	3
1. Rice	185632	85.93
2. Jowar	1063	0·49
3. Bajra	9	0·004
4. Maize	171	0·08
5. Ragi	139	0·06
6. Other Cereals and Millets	353	0·16
7. Total Cereals and Millets	187367	86·74
8. Total Pulses	10566	4·89
7. Total Foodgrains	197933	91·63
10. Sugarcane	7042	3·26
11. Other Food Crops	4051	1·86
12. Total Food Crops	209026	96·76
13. Groundnut	112	0·05
14. Gingelly	1895	0·88
15. Castor	50	0·02
16. Tobacco	1763	0·82
17. Cotton	26	0·01
18. Other Non-food Crops	3146	0·82
17. Total Non-food Crops	6992	3·24
20. Total Cropped Area	216018	100·00
21. Gross value of Agricultural output (In Rs.)* :		
Per acre	973.44	
Per agricultural worker	1760.03	
22. Net area sown	136351	
23. Net area irrigated	128252	

* Relates to 1970-71.
(District Averages : Per acre : 846
Per Agricultural Worker : 1111)

Source : Basic Taluk Statistics, Andhra Pradesh, 1972-73.
Bureau of Economics and Statistics, Government of Andhra Pradesh, Hyderabad.

Table 2.08—Net Area Irrigated under Different Sources in Ramachandrapuram Taluk, 1971-72 (In acres)

Taluk	Net area irrigated under				Area irrigated more than once	Gross area irrigated	Percentage of gross irrigated to gross cropped area
	Canal	Tanks	Tube-wells	Total			
1	2	3	4	5	6	7	8
Ramachandrapuram	124667 (97·20)	1747 (1·36)	1838 (1.44)	128252 (100·00)	67183	195435	90·47

N.B. : Figures in brackets indicate percentages to total.

2.05. Indicators of Technological Progress in Agriculture

A reference was already made to the fact that 94·1% of the net area sown is irrigated, of which 97·2% is under canals. The percentage of gross area irrigated to gross cropped area in 1971-72 was 90·5, which means that virtually every acre of land was used for raising two crops in the year. Apart from this, the data provided by the Block authorities show that there was a rapid increase in the mechanisation of well irrigation by the use of oil-engines and electric motors, and in the number of tractors used for cultivation (Table 2.09). The area covered by HYVs of paddy both in the Kharif and Rabi seasons also increased rapidly. By 1970-71, while the area covered in the Rabi season under paddy was already high, the coverage of the Kharif season was still low. The statistics supplied for the more recent years 1974-75 and 1975-76, show that more than 95% of the area under paddy in the Rabi season and 85% in the Kharif season was covered by HYVs. The area also consumed substantial quantities of fertilisers and pesticides. A comparative study of the resource productivity, input levels, resource base and infrastructure for the Rayavaram block and 3 other blocks in the East Godavari district during the year 1969-70 has also brought out clearly that the Rayavaram block was richly endowed with various credit, input supply, marketing and processing institutions.

2.06. Non-agricultural Activities

As one should expect, considerable industrial development, both of the factory and non-factory type, had taken place in the taluk during the last 3 or 4 decades. The 1961 Census gives a fairly detailed account of the number and employment in the large scale establishments covered under the Factories Act, as well as the small scale industries not covered by the Factories Act, (Table 2.10). An account of the working population engaged in the various non-agricultural occupations in the rural areas of the taluk according to the 1971 Census is already given in Table 2.05 and 2.06.

Table 2.09—Indicators of Technological Advancement in Rayavaram and Kapileswarapuram Block

Item	Rayavaram	Kapileswara-puram	Total
1	2	3	4
I. Land Use :			
1. Total Geographical area (Hectares)	31107	37250	68357
2. Net area sown (Hectares)	23816	27870	53686
3. Area sown more than once (Hectares)	17222	26400	43622
4. Gross Cropped area (Hectares)	41038	56270	97308
II. Cropping Pattern :			
1. Area under Paddy in Kharif (Hectares)	20920	25850	46770
Of which under HYV (%)	85·45	86·37	85·96
2. Area under Paddy in Rabi (Hectares)	15310	16220	31530
Of which under HYV(%)	98·12	97·72	98·02
3. Area under Sugarcane (Hectares)	2061	1306	3367
4. Area under Pulses (Hectares)	1461	4010	5471
5. Area under Gingelly (Hectares)	297	540	837
III. Irrigation :			
1. Net area Irrigated (Hectares)	23335	28562	51897
As a % of net area sown	97·78	95·62	96·67
2. Gross area Irrigated (Hectares)	35997	44532	80529
As a % of Gross Cropped area	87·72	79·14	82·76
IV. Mechanisation :			
(a) No. of Filter Points	840	1846	2686
(b) No. of oil -engines	368	886	1254
(c) No. of Electric Motors	517	531	1048
(d) No. of Bore Wells	95	N.A.	95
(e) No. of Tractors	139	80	219
(f) No. of Villages Electrified	49	61	110

Item		Rayavaram	Kapileeswars-puram	Total
1		2	3	4
(V) Co-operation :				
(a) No. of Co-op. Societies		168	112	280
(b) No. of Members		50375	41847	92222
(c) No. of Agricultural Families		19376	26620	46016
(d) No. of Agrl. Families covered		13763	16755	30518
(e) Percentage covered		70·96	62·94	66·32
(VI) Per Acre Yields :				
(a) Paddy Traditional (Kgs.)		1264	1200	1200 to 1264
(b) HYV Paddy	(Kgs.)	2050	2250	2050 to 2250
(c) Jowar Local	(Kgs.)	N.A.	600	06
(d) Jowar Hybrid	(Kgs).	N.A.	1500	15000
(e) Maize	(Kgs.)	N.A.	500	500
(f) Maize Hybrid	(Kgs.)	N.A.	1500	1500
(g) Sugarcane (Tonnes)		382	35	35 to 38

Source : Information supplied by the Block Authorities. Data relate either to 1974-75 or 1975-76.

N.B. : N.A.—Not Available.

Table 2.10—Number of Small Industries and Factories and the Number of Workers employed in Ramachandrapuram Taluk (1961 Census)

Item	No. of Industries/Factories	No. of establishments	No. of persons employed	Average number of workers employed daily
1	2	3	4	5
1. Small Industries	13	55	1411	—
Rural :				
2. Rice Mills	36	—	—	1223
3. Sugar Factories & Refineries	2	—	—	360
4. Tobacco	1	—	—	1038
5. Spinning & Weaving	1	—	—	178
6. Pharmaceutical Chemicals	1	—	—	102
7. Bricks & Tiles	7	—	—	320
8. Bolts, Nuts, etc.	2	—	—	40
9. General & Job Engineering	3	—	—	46
Urban :				
10. Rice Mills	21	—	—	566
11. Soft Drinks & Carbonated Water Industries	1	—	—	50
12. Tobacco	1	—	—	3548
13. Wood Except Furniture	6	—	—	92
14. Structural Clay Products	1	—	—	26
Total	96	55	1411	7589

Source : Census Hand Book for the East Godavari District, 1961.

2.07. Demographic Features and Economy of the Selected Villages

(a) Demographic Features

As already mentioned in Chapter I, a sample of 10 villages in the taluk was taken for the purpose of the study, the villages being fairly homogenous in regard to various agro-climatic and socio-economic characteristics as referred to in the previous section about the taluk. For a full account of the socio-economic characteristics of the selected villages, a reference may be made to Chapter IV of the I.S.I. Study. In this section, it is proposed to highlight some significant features only.

As given in Table 2.11, the population of the ten selected villages was 44,209 in 1961 and 52,540 in 1971. The decennial growth rate of population was accordingly 1·74%. Out of the total population, Scheduled Castes and Tribes constituted 12·05% in 1961 and 10·41% in 1971. As regards the literarcy rates the improvement between 1961 and 1971 was considerable. While 30·8% of the males were accounted as literate and educated in 1961, 39·7% came to be so accounted in 1971. The literate and educated population of females increased from 16·9 in 1961 to 29·7 in 1971.

(b) Workers in Different Categories of Occupations

The working population of the ten villages came to be 48·16% of the total population in 1961, the participation rate for males being 66·37% and for females 30.25% (Table 2.12). The total number of workers in the 3 major occupations, *viz.*, cultivation, agricultural labour and household industry, constituted 80·02%. The break-down of workers by principal work or occupation was as follows :

	%
Cultivation	27·62
Agricultural labour	37·30
Household industry	15·10
Others	19·98
	100·00

As already explained, there is considerable difficulty in comparing the 1971 Census data with the 1961 Census data regarding working population. There was a decline in the working population of the ten selected villages between 1961 and 1971, and the major changes are shown below :

	1961	1971
Participation Rate :		
Males	66·37%	62·71%
Females	30·25%	14·75%
Cultivators :		
Males	35·05%	33·10%
Females	11·57%	2·18%
Agricultural Labourers :		
Males	30·92%	39·77%
Females	51·06%	79·31%
Household Industry :		
Males	12·76%	7·26%
Females	20·14%	4·91%

In the total working population the percentage of female workers declined from 30·35 in 1961 to 14·75 in 1971. There was considerable increase in the proportion of male and female agricultural labourers. The proportion of agricultural labourers in the total male working population increased from 30·92% in 1961 to 39·77% in 1971, and the proportion of female agricultural labourers from 51·06% to 79·31%.

(c) Cropping Pattern

The net area sown in the ten selected villages was 6,017 hectares in 1969-70 and the total cropped area was 9,674 hectares. 82·9% of the gross cropped area was under paddy, 6·9% under sugarcane and 5.1% under pulses. About 99% of the net area sown was irrigated and the intensity of irrigation was 148·93%. The intensity of cultivation was also high as the gross cropped area was nearly 161% of the net area sown.

(d) Indicators of Technological Progress

Apart from the high intensity of irrigation and of cultivation there has been considerable increase in the mechanisation of well irrigation by the use of oil-engines and electric motors. In 1969-70 there were 373 filter-points, 201 electric motors, 160 oil-engines and 21 tractors in the ten selected villages. The area covered by HYVs of paddy both in Kharif and Rabi seasons also increased rapidly in the selected villages in the recent years.

Table 2.11—Population, Scheduled Castes and Tribes and Literates in the Selected Villages According to 1961 and 1971 Census.

Items	1961 Census	1971 Census	Growth rates (Annual)
1	2	3	4
Area in Sq. Miles	29·04	29·04	—
No. of Houses	8519	9352	—
No. of Households	9726	11432	—
Total Population	44209	52540	1·74
Males	21920	26434	1·89
Females	22289	26106	1·59
Scheduled Castes	5162	5295	0·25
Males	2541	2633	0·36
Females	2621	2662	0·16
Scheduled Tribes	165	173	0·48
Males	77	86	1·11
Females	88	87	-0·11
Literates & Educated Persons	10538	18231	5·63
Males	6758	10490	4·50
Females	3780	7741	7·43

Table 2.12—Workers and Non-workers in the Selected Villages according to 1961 and 1971 Census.

Name of the activity	1961 Census			1971 Census		
	Males	Females	Total	Males	Females	Total
1	2	3	4	5	6	7
Total Workers :	14540 (100.00)	6742 (100.00)	21291 (100.00)	16577 (100.00)	3852 (100.00)	20429 (100.00)
1. Cultivators	5100 (35.05)	780 (11.57)	5880 (27.62)	5487 (33.10)	84 (2.18)	5571 (27.27)
2. Agricultural Labourers	4499 (30.92)	3442 (51.06)	7941 (37.30)	6592 (39.77)	3055 (79.31)	9647 (47.22)
3. Mining, etc	297 (2.04)	14 (0.21)	311 (1.46)	394 (2.38)	75 (2.95)	469 (2.30)
4. Household Industry	1856 (12.76)	1358 (20.14)	3214 (15.10)	1204 (7.26)	189 (4.91)	1393 (6.82)
5. Manufacturing, etc.	302 (2.08)	120 (1.78)	422 (1.98)	559 (3.37)	42 (1.09)	601 (2.94)
6. Construction	86 (0.59)	2 (0.03)	88 0(.41)	107 (0.64)	—	107 (0.52)
7. Trade & Commerce	692 (4.76)	154 (2.28)	846 (3.97)	947 (5.11)	80 (2.08)	927 (4.54)
8. Transport, Storage, etc.	136 (0.93)	—	136 (0.64)	185 (1.12)	1 (0.02)	186 (0.91)
9. Other Services	1581 (10.87)	872 (12.93)	2453 (11.52)	1802 (7.25)	326 (8.46)	1528 (7.48)
10. **Non-workers :**	7371	15547	22918	9857	22254	32111
11. Participation rate (%)	66.37	30.25	48.16	62.71	14.75	38.88

N.B. : Figures in brackets indicate percentages to total workers.

2·08 Inequalities in the Distribution of Landholdings

As mentioned in the introduction, the Ramachandrapuram taluk is one of the agriculturally advanced taluks in the East Godavari district and in Coastal Andhra Pradesh. It is however found that there are extreme inequalities in the distribution of sources of income for the population. As regards the occupational distribution of population in the taluk, it was already pointed out that about 45% of the households in the taluk are almost wholly dependent on agricultural labour as a source of livelihood, and do not own or cultivate land, and in the 1961 Census workers classified as agricultural labour constituted 39·85% of the total workers in the rural area of the taluk, while 29·05% were classified as cultivators. In the 1971 Census, agricultural labourers constituted 49·42% and cultivators 25·5% of the total workers.

The distribution of the cultivator households according to the size-group of operational holdings is given in Table 2·13. The four distributions shown in the table are based on the 20% sample of households in the 1961 Census, the World Agricultural Census, 1971, the frame prepared for the sampling of cultivator households in the selected villages, and the actual sample of cultivator households studied. These distributions indicate broadly the same pattern and extent of inequalities in the distribution of landholdings, with 50 to 60% of the cultivator households in the lowest size-group below 1 hectare, and 20 to 25% in the size-group of 1 to 2 hectares. The World Agricultural Census has given the area operated by the cultivator households in each holding size-group. According to it, in the holding size-group below 1 hectare, the percentage of holdings was 60·9 with the percentage of area operated coming to 15·8. In the holding size-group of 1 to 2 hectares, the percentage of holdings was 17·4 with the percentage of area operated coming to 15·8. In the top holding size groups above 5 hectares, the number of holdings was 6·4%, the area operated being 38·3%.

Table 2.13—Distribution of Cultivator Households according to Size of Operational Holding.

Size-Group of operational holding (hectares)	According to 1961 Census based on 20% sample — No. of Households: East Godavari District (Rural)	According to 1961 Census based on 20% sample — No. of Households: Ramachandra-puram Taluk (Rural area)	World Agricultural Census (Andhra Pradesh) — East Godavari District (1970-71): No. of holdings	World Agricultural Census (Andhra Pradesh) — East Godavari District (1970-71): Area operated	Total cultivator households in the 10 selected villages as enumerated in 1969-70 in the Ramachandrapuram Taluk	Sample of cultivator holdings in the Income Savings and Investment Study in 1969-70 (Ramachandra-puram Taluk)
1	2	3	4	5	6	7
0·01—1·00	19826 (49·25)	3513 (57·30)	162938 (60·69)	66546 (15·82)	1938 (56·65)	51 (51·52)
1·01—2·00	8395 (20·86)	1196 (19·51)	46498 (17·38)	66223 (15·76)	824 (24·09)	23 (23·23)
2·01—3·00	4574 (11·36)	592 (9·66)	21804 (8·15)	52637 (12·52)	244 (7·13)	9 (9·09)
3·01—4·00	1959 (4·87)	272 (4·44)	11463 (4·28)	39552 (9·41)	205 (5·99)	5 (5·05)
4·01—5·00	1970 (4·89)	199 (3·25)	7792 (2·91)	34571 (8·22)	80 (2·34)	3 (3·03)
Above 5·00	3528 (8·77)	358 (5·84)	17111 (6·39)	160815 (38·27)	180 (3·80)	8 (8·08)
	4025 (100·00)	6130 (100·00)	267606 (100·00)	420344 (100·00)	3421 (100·00)	99 (100·00)

N·B. : Figures in brackets indicate percentages to total.

CHAPTER III

DIMENSIONS OF POVERTY AND INEQUALITIES OF INCOME AND WEALTH

3.01 Introduction

As mentioned in the First Chapter, the major concern of the study is to examine the dimensions of rural poverty and inequalities in an agriculturally advanced and prosperous area. The Ramachandrapuram Taluk of the East Godavari district is selected for this purpose and the study is based on an intensive study of the data collected from the cultivator households and non-cultivating agricultural labour households. The concept of poverty that is accepted for the purpose of analysis as already mentioned, is the concept of absolute poverty and deficiency of food energy.

According to the estimates of Dandekar and Rath, Andhra Pradesh has come out as the second poorest State in the country, the first one being Kerala (Table 3·01). The percentage of rural population with inadequate intake of calories was 62.14 as compared with 30·9 for the whole country. In the different States in India, the food consumption reaches the desired level of 2250 calories in different expenditure classes because of differences in prices and consumer preferences regarding food.[1] In our study of the rural area of the Ramachandrapuram taluk the population below the poverty line came to be 65 per cent despite the high productivity of agriculture in the area. This is partly due to the relatively high proportions of non-cultivating agricultural labourers and the small and marginal farmers, as explained later in the study.

Table 3.01—Poverty in India —1961-1962 (Rural).

State	Per capita total annual consumption expenditure (Rs.)	Percentage of population with an inadequate intake of calories
Andhra Pradesh	236	62·14
Orissa	167	43·88
West Bengal	199	44·09
Tamil Nadu	235	55·19
Kerala	464	90·75
All India	170	30·92

Source : From Table 1.5, Dandekar and Rath, Poverty in India, op. cit, p.12.

3.02 Sample Households below the Poverty Line :

The distribution of the sample cultivator and agricultural labour households below and above the poverty line and according to per capita income groups is shown in Table 3·02. In 1969-70 and 1970-71, 62 to 63% of the cultivator households were below the poverty-line and in 1971-72 only 27% were below the poverty-line. The taluk suffered from the effects of severe cyclone in 1969-70 and crop pests in 1970-71 and, therefore, both the years were seasonally unfavourable years. On the other hand 1971-72 was seasonally an extremely favourable year. Taking the average for the three years it is found that 50·0% of cultivator households were below the poverty-line. In contrast with the picture of cultivator households, the percentage of agricultural labour households below the poverty-line was 77·5 in 1969-70 land 79·5 in 1970-71, and it increased to 82·5 in 1971-72. The number of labour households below the poverty-line remained virtually above 75% of the total during good and bad years.

3.03 Distribution of Households according to Per Capita Income Groups

Several economists have recently pointed out that undue importance should not be attached to the division of households into two such sharply defined categories, *i.e.*, those below the

Table 3.02—Distribution of Selected Households according to Per Capita Income-Groups.

Per Capita Income-Groups (Rs.)	Cultivator Households			Agricultural Labour Households		
	1969-70	1970-71	1971-72	1969-70	1970-71	1971-72
1	3	3	4	5	6	7
Upto 250	40	30	3	15	12	10
251—Poverty Line*	21	32	24	16	19	23
Below Poverty Line*	61	62	27	31	31	33
Poverty Line* to 500	0	8	11	2	4	3
251—500	30	40	35	18	23	26
501—750	12	15	20	7	4	3
751—1000	6	3	11	—	—	—
1001—1500	5	6	12	—	1	1
Above 1500	6	4	19	—	—	
Above Poverty Line*	38	36	73	9	8	7
Total	99	98	100	40	39	40

(*) Poverty Line for : 1960-70 — Rs. 405
1970-71 — Rs. 427
1971-72 — Rs. 445

poverty-line and those above, on the basis of a simple estimate of minimum income requirement for providing daily per capita diet with a calorie value of about 2250 units.[3] The distribution of the households below the poverty-line is a more important matter for consideration, though the distribution of households above the poverty line should not be ignored.

As shown in Table 3.02, in the period 1969-70 to 1971-72, 24.6% of the cultivator households were in the lowest per capita income group, *i.e.*, below Rs. 250, and 50·5% below the poverty-line. The number of households in the higher income groups above Rs. 1,000 came to 17·5% of the total. As regards the agricultural labour households, 33·6 per cent were in the lowest per capita income group, below Rs. 250, and 86·3 per cent below the poverty line. The number of households in the income groups above Rs. 750 was only 0·9 per cent.[4]

3.04 The Poverty Spectrum

It is possible to further divide the households above and below the poverty line into sub-groups which may be stated roughly as follows :

Below Poverty Line

1. The Poorest,
2. Very Poor, and
3. Marginally Poor.

Above Poverty Line

4. Marginally non-poor,
5. Well-to-do, and
6. Rich.

These conceptual sub-categories of the wide poverty-rich spectrum cannot be defined precisely. There is no clear and objective method of determining the cut-off levels of per capita income for distributing the households under these categories. However, making due allowance for some arbitrariness and based on commonsense considerations, the following cut-off levels of per capita income are used for indicating the distribution of households into the above mentioned 6 categories.[5]

Household Category	*Annual Per Capita Income*
1. Poorest	Upto Rs. 250/-.
2. Very poor	Rs. 250/- to Rs. 350/-.
3. Marginally poor	Rs. 350/- to poverty-line.
4. Marginally non-poor	Poverty-line to Rs. 450/-.
5. Well-to-do	Rs. 450 to Rs. 1,000/-.
6. Rich	Above Rs. 1,000/-.

Table 3.03 gives the distribution of households made according to the above criteria. It is significant that in 1969-70 and 1970-71 more than 50% of the cultivator households below the poverty-line have fallen in the category of the poorest. The poorest and the very poor together constitute more than 85%. In 1971-72 while the poorest have come down to 11%, the poorest and the very poor together have come to 52% of the households below the poverty-line. In the case of households above the poverty-line the marginally non-poor constitute 24% in 1969-70 and 14% in 1970-71, while the well-to-do and rich constitute 29% in 1969-70 and 28% in 1970-71. In the year 1971-72 the marginally non-poor category disappears, and the well-to-do and rich constitute 73%.

As regards the agricultural labour households, in 1969-70 and 1970-71 about 48% and 39% of the households below the poverty-line respectively were in the category of the poorest, and the poorest and the very poor together constitute about 87%- and 81% respectively. In 1971-72, the poorest have come to 30% and the poorest and the very poor together have come to 67% of the households below the poverty-line. In the case of households above the poverty-line, almost all of them are in the well to-do category.

Table 3.03—Spectrum of Poverty.

Class (On the basis of Per Capita Income) (Per Annum)	No. of Cultivator Households			No. of Agricultural Labour Households		
	1969–70	1970–71	1971–72	1969–70	1970–71	1971–72
1	2	3	4	5	6	7
Poorest : Upto Rs. 250	40 (40·40)	30 (30·62)	3 (3·00)	15 (37·50)	12 (30·77)	10 (25·00)
Very Poor : Rs. 251—350	18 (18·18)	23 (23·47)	11 (11·00)	12 (30·00)	13 (33·34)	12 (30·00)
Marginally Poor : Rs. 351—Poverty Line*	3 (3·03)	9 (9·18)	13 (13·00)	4 (10·00)	6 (15·38)	11 (27·50)
Total : Below Poverty Line*	61 (61·61)	62 (63·27)	27 (27·00)	31 (77·50)	31 (79·49)	33 (82·50)
Marginally Non-Poor : Poverty Line* to Rs. 450	9 (9·09)	5 (5·10)	—	1 (2·50)	2 (5·13)	1 (2·50)
Well-To-Do : Rs. 451—Rs. 1,000	18 (18·18)	21 (21·43)	42 (42·00)	8 (20·00)	6 (15·38)	5 (12·50)
Rich : Rs. 1001—1500 & Above	11 (11·11)	10 (10·20)	11 (31·00)	—	—	1 (2·50)
Total : Above Poverty Line*	38 (38·39)	36 (36·73)	73 (73·00)	9 (22·50)	8 (20·51)	7 (17·50)
Total Households	99 (100·00)	98 (100·00)	100 (100·00)	40 (100·00)	39 (100·00)	40 (100·00)

N.B. : Figures in brackets indicate percentages to total.

(*) Poverty Line : 1969–70 : Rs. 405.
1970–71 : Rs. 427.
1971–72 : Rs. 445.

3.05 Proportion of Households below poverty-line in the Taluk as a whole

It is possible to make a fairly dependable estimate of the proportion of households below the poverty-line in the rural population of the taluk as a whole on the basis of two reasonable assumptions : (1) The proportion of cultivator households in the total number of rural households is 45% and that of the non-cultivating agricultural labour households is also 45%, with the remaining households constituting 10%. These proportions correspond to the data given in the 1961 Census based on the 20% sample of the households. (2) The proportion of households below the poverty-line in the cultivator and agricultural labour household taken together may be considered to hold good for the remaining 10% of the households. The results of this exercise to arrive at the magnitude of poverty in the taluk are presented in Table 3.04. It is clear from the Table that taking the 3 years period as a whole into account, 51% of the cultivator households and 80% of the non-cultivating agricultural labour households were below the poverty-line. The average for the whole rural population of the taluk came to 65%.

Inequalities in the Distribution of Income and Wealth

3.06. Inequalities in Income Distribution

Table 3.05 gives the distribution of cultivator households and the income received by them, according to per capita income groups. In the years 1969-70 and 1970-71, 71% of the households in the first two size-groups put together, *i.e.*, below Rs. 500 annual per capita income, received only 22·8% of the total income, while 11·1% of the households in the two top size-groups, *i.e.*, above Rs. 1,000 annual per capita income, received 38·9% of the total income. The Gini Concentration ratios calculated (Table 3·10) come to 0·46 for 1969-70 and 0·40 for 1970-71. In the year 1971-72, there was a shift in the income distribution towards higher size-groups. In the first two size-groups, *i.e.*, below Rs. 500 annual per capita income, the percentage of households was 38·0 and the income received by them was 12·8%. The households in the top two income size-groups above Rs. 1,000 annual per capita income, constituting 31% of the households, received 66·4%

Table 3.04—Proportion of Households Below and Above the Poverty-Line in the Taluk.

Category		1969–70		1970–71		1971–72		Average for the 3 years	
		Below poverty-line	Above poverty-line	Below poverty-line	Above poverty-line	Below poverty-line	Above poverty-line	Above poverty line	Below poverty-line
1		2	3	4	5	6	7	8	9
Cultivators	(%)	62	38	63	37	27	73	51	49
Agricultural labourers	(%)	78	22	79	21	83	17	80	20
Others	(%)	70	30	71	29	55	45	65	35
Total	(%)	70	30	71	29	55	45	65	35

of the income. The Gini concentration ratio for the year 1971-72 came to 0·44. The Gini concentration ratio for the 3 years combined was 0·48. The concentration ratio calculated on the basis of the distribution of cultivator households according to household income groups was 0·54 for the 3 years combined.

The distribution ot agricultural labour households and the income received by them, according to per capita income groups, is shown in Table 3.07. As one would expect, the households were almost wholly concentrated in the first two size-groups of holdings, and accordingly the Gini concentration ratio was only 0·03 to 0·04 during the 3 years (Table 3.10).

3.07. Inequalities in Land Distribution

Table 3.08 shows the distribution of cultivator households and the area operated by them according to operational holding groups. In 1969-70, 51·5% of the households in the first two size-groups, *i.e.*, below 1 hectare, operated only 12·5% of the area, while 8·1% of the households in the size-groups above 5 hectares operated 39·5% of the area. The distribution in 1970-71 and 1971-72 did not show any significant change from the 1969-70 picture. The Gini-concentration ratio calculated was 0·58 for 1969-70 and 1970-71 and 0.59 for 1971-72 (Table 3.10).

3.80. Inequalities in the Distribution of Total Assets

The distribution of the cultivator households and the assets owned by them according to asset size-groups is shown in Table 3.09. In 1969-70, 42·4% of the households in the lowest two size-groups below Rs. 10,000 owned 3·2% of the assets only, while the households in the highest 3 size-groups, *i.e.*, above Rs. 60,000/- constituting 24·1%, owned 81.3% of the assets. The households in the highest size-group above Rs. 1·5 lakhs, constituting 8% owned 55·3% of the assets. This picture of the distribution of assets among the cultivator households did not significantly change in 1970-71 and 1971-72. The Gini concentration ratio calculated was 0·72 in 1969-70 and 1970-71, and 0.71 in 1971-72 (Table 3·10).

As one might expect, the Gini concentration ratio is highest when the distribution of assets is taken into consideration. The

ratio is considerably less when the distribution of operated area is considered. It is still less when the distribution of household according to household income groups is taken into account and is lowest when the distribution is according to per capitaincome groups. These differences are due to variations in household size, size of operational holding and ownership of property other than land. It is however evident that whichever variable is considered for measuring inequality, the taluk is characterised by a high degree of inequality.

Table 3.05—Distribution of Selected Cultivator Households and Income according to Per Capita Income-Groups.

(In rupees)

Per Capita Income-Groups (Rs.)	1969–70				1970–71				1971–72			
	No. of HHs	%	In-come	%	No. of HHs.	%	In-come	%	No. of HHs.	%	In-come	% 13
1	2	3	4	5	6	7	8	9	10	11	12	13
Upto 250	40	40·41	36122	13·47	30	30·61	25238	9·72	3	3·00	4882	0·78
251—500	30	30·30	51818	19·33	40	40·82	79712	30·68	35	35·00	75237	11·99
501—750	12	12·12	46520	17·35	15	15·31	58271	22·44	20	20·00	73283	11·68
751—1000	6	6·06	29452	10·99	3	3·06	9442	3·64	11	11·00	57246	9·13
1001—1500	5	5·05	32728	12·21	6	6·12	43386	16·71	12	12·00	81742	13·03
Above 1500	6	6·06	71459	26·65	4	4·08	43668	16·81	19	19·00	334898	53·39
Total	99	100·00	268099	100·00	98	100·00	259717	100·00	100	100·00	627288	100·00
Of which :												
Below Poverty Line*	61	61.61	67750	25·27	62	63·27	84683	32·61	27	27·00	52550	8·38
Above Poverty Line*	38	38.39	200349	74·73	36	36·73	175034	67·39	73	73·00	574738	91·62

(*) Poverty Line for 1969–70 : Rs. 405.
1970–71 : Rs. 427.
1971–72 : Rs. 445.

Table 3.06—Distribution of Selected Cultivator Households and Income according to Household Income-Groups.

(In rupees)

Household Income-Groups (Rs.)	1969–70				1970–71				1971–72			
	No. of HHs.	%	Income (Rs.)	%	No. of HHs.	%	Income (Rs.)	%	No. of HHs.	%	Income (Rs.)	%
1	2	3	4	5	6	7	8	9	10	11	12	13
Upto 1000	29	29·30	16146	6·02	23	23·47	11431	4·40	2	2·00	1723	0·27
1001—1500	24	24·24	30042	11·20	18	18·37	23377	9·00	9	9·00	12087	1·93
1501—2500	20	20·20	40505	15·11	31	31·64	63577	24·48	25	25·00	49104	7·83
2501—4000	8	8·08	26192	9·77	11	11·22	39784	15·32	24	24·00	79171	12·62
4001—6000	8	8·08	42294	15·78	8	8·16	42700	16·44	13	13·00	64978	10·36
6001—10000	6	6·06	55733	20·79	4	4·08	38413	14·79	12	12·00	92238	14·70
Above 10,000	4	4·04	57187	21·33	3	3·06	40435	15·57	15	15·00	327987	52·29
Total	99	100·00	268099	100·00	98	100·00	259717	100·00	100	100·00	627288	100·00
Of which :												
Below Poverty Line*	61	61·61	67750	25·27	62	63·27	84683	32·61	27	27·00	52550	8·38
Above Poverty Line*	38	38·39	200349	74·73	36	36·73	175034	67·39	73	73·00	574738	91·62

(*) Poverty Line for : 1960–70 : Rs. 405.
1970–71 : Rs. 427.
1971–72 : Rs. 445.

Table 3.07—Distribution of Selected Agricultural Labour Households and Income according to Per Capita Income-Groups.

(In rupees)

Household Income-Groups (Rs.)	1969–70				1970–71				1971–72			
	No.of of NHs.	%	In-come (Rs.)	%	No. of NHs..	%	In-come (Rs.)	%	No. of NHs.	%	In-come (Rs.)	%
1	2	3	4	5	6	7	8	9	10	11	12	13
Upto 250	15	37·50	15980	34·77	12	30·77	12539	25·97	10	25.00	12131	21.70
251—500	18	45·00	21121	45·95	23	58·97	31127	64·47	26	65.00	37583	67.22
501—750	7	17·50	8860	19·28	4	10·26	4615	9·56	3	7.50	4143	7.41
751—1000	—	—	—	—	—	—	—	—	—	—	—	—
1001—1500	—	—	—	—	—	—	—	—	—1	2.50	2054	3.67
Total	40	100·00	45961	100·00	39	100·00	48281	100·00	40	100.00	55911	100.00
Of which :												
Below Poverty Line*	31	77·50	34761	75·63	31	70.49	37377	77·41	33	82·50	45495	81·38
Above Poverty Line*	9	22·50	11200	24·37	8	20.51	10904	22·59	7	17·50	10416	18·62

(*) Poverty Line for 1969–70 : Rs. 405.
1970–71 : Rs. 427.
1971–72 : Rs. 445.

Table 3.08—Distribution of Selected Cultivator Households and Operated Area according to Operational Holding Groups.

Operational Holding Groups (In Hectares)	1969–70				1970–71				1971–72			
	No. of HHs.	%	Operated area (hectares)	%	No of HHs.	%	Operated area (hectares)	%	No. of HHs.	%	Operated area (hectares)	%
1	2	3	4	5	6	7	8	9	10	11	12	13
0·01— 0·50	32	32·33	8·32	4·78	34	34·70	8·84	5·31	34	34·00	8·86	5·10
0·51— 1·00	19	19·19	13·49	7·74	19	19·39	13·87	8·33	21	21·10	14·97	8·62
1·01— 2·00	23	23·23	31·05	17·82	21	21·43	29·40	17·65	21	21·10	28·87	16·63
2·01— 3·00	9	9·09	21·25	12·20	10	10·20	23·50	14·11	9	9·00	20·74	11·95
3·01— 5·00	8	8·08	31·18	17·89	8	8·16	32·08	19·26	6	6·00	23·04	13·27
5·01— 10·00	5	5·05	33·27	19·09	3	3·06	22·94	13·76	6	6·00	42·17	24·29
Above 10·00	3	3·03	35·68	20·48	3	3·06	35·97	21·58	3	3·00	34·96	20·14
Total	99	100·00	174·24	100·00	98	100·00	166·60	100·00	100	100·00	173·61	100·00
Of which :												
Below Poverty Line*	61	61·61	56·73	32·56	62	63·27	61·38	36·84	27	27·00	12·96	7·47
Above Poverty Line*	38	38·39	117·51	67·44	36	36·73	105·22	63·16	73	73·00	160·65	92·53

(*) Poverty Line for 1969–70 : Rs. 405.
1970–71 : Rs. 427.
1971–72 : Rs. 445.

Table 3.09—Distribution of Selected Cultivator Households and Total Assets according to Asset-Groups.

(In rupees)

Asset-Groups (Rs.)	1969-70				1970-71				1971-72			
	No. of HHs.	%	Total assets (Rs.)	%	No. of HHs.	%	Total assets (Rs.)	%	No. of HHs.	%	Total assets (Rs.)	%
1	2	3	4	5	6	7	8	9	10	11	12	13
Upto 5000	23	23·24	52674	0·96	24	24·50	60226	1·11	24	24·00	57073	1·00
5001—10000	19	19·19	124359	2·28	17	17·36	111894	2·06	16	16·00	107044	1·88
10001—15000	10	10·10	130678	2·40	9	9·18	113481	2·09	9	9·00	106047	1·86
15001—25000	10	10·10	197861	3·36	12	12·24	241915	4·46	14	14·00	275162	4·84
25001—40000	9	9·09	280433	5·14	8	8·16	251469	4·63	8	8·00	261640	4·60
40001—60000	5	5·05	231939	4·25	5	5·10	230942	4·26	4	4·00	203311	3·57
60001—100000	9	9·09	675116	12·38	10	10·20	768276	14·16	10	10·00	737905	12·96
100001—150000	6	6·06	743230	13·63	5	5·10	636837	11·74	6	6·00	742892	13·05
Above 150000	8	8·08	3017675	55·33	8	8·16	3011121	55·49	9	9·00	3200825	56·24
Total	99	100·00	5453965	100·00	98	100·00	5426161	100·00	100	100·00	5691899	100·00
Of which :												
Below Poverty Line*	61	61·61	891411	16·34	62	63·27	1085650	20·01	27	27·00	212726	3·74
Above Poverty Line*	38	38·39	4562554	83·66	36	36·73	4340511	79·99	73	73·00	5479173	96·26

(*) Poverty Line for 1969-70 : Rs. 405.
1970-71 : Rs. 427.
1971-72 : Rs. 445.

Table 3.10—Gini Concentration Ratios.

Sl. No.	Item	1969-70	1970-71	1971-72	Combined 3 years
1	2	3	4	5	6
	Cultivator Households :				
1.	Per capita income-groups	0·46	0·40	0·44	0·48
2.	Household income-groups	0·53	0·47	0·50	0·54
3.	Operated area-groups	0·58	0·58	0·59	0·59
4.	Asset-groups	0·72	0·72	0·71	—
	Agricultural Labour Households :				
5.	Per capita income-groups	0·03	0·04	0·04	0·03
6.	Household income-groups	0·16	0·15	0·14	0·16
	Cultivator & Agricultural Labour Households :				
7.	Per capita income-groups	0·42	0·37	0·48	0·47
8.	Household income-groups	0·50	0·45	0·54	0·53

CHAPTER IV

SOCIO-ECONOMIC CHARACTERISTICS OF SELECTED HOUSEHOLDS ABOVE AND BELOW THE POVERTY-LINE

4.01. Introduction

An attempt is made in this chapter to give a detailed account of the socio-economic characteristics of the selected households, both cultivator and agricultural labour households, keeping in view the distinction between households below the poverty-line and those above the poverty-line. The statistical tables given in Part II of this study give full details of the distribution of these characteristics according to per capita income groups.[1] In this chapter, the discussion is mainly focussed on the distinction between the households below the poverty-line and those above the poverty-line. The object of the analysis is not only to describe the distribution of these characteristics among the poor and the non-poor households, but also to throw light on the dianostic aspects of the study which will be considered in the later chapters.

The following are the socio-economic characteristics consisidered in this chapter :

A. Demographic Characteristics

1. Population : Size and Composition of Households.
2. Age of the Head of the Household.
3. Educational Status of the Head of the Household.

B. Caste and Occupation

4. Caste composition.
5. Occupational Diversification

C. Work Participation and Employment

6. Economic Status and Percentage of Non-Workers
7. Participation Rates of Males, Females and Children.
8. Employment and Under-utilisation of Labour-Time.

D. Land Holdings and Tenure

9. Size and composition Operational Holding and Owner-holding
10. Tenancy

E. Farm and Non-farm Assets

11. Farm and Non-farm Assets

F. Input and Output in Agriculture

12. Cropping Pattern
13. Input Structure in Farming
14. Yields of Principal Crops
15. Farm Business Income : Profits on the basis of Costs A_2 and A_1

G. Incomes, Savings and Investments

16. Household Income and Sources : Agricultural and Non-agricultural
17. Consumption Expenditure Patterns
18. Household Savings
19. Investments

A. Demographic Characteristics

4.02. Population : Size and Composition of Households

Table 4.01 gives the data regarding the population, household size and composition of the selected households and it brings out three significant facts. Firstly, the average size of the cultivator household was considerably larger than the average size of the agricultural labour household. During the 3 years of study, the average size of the cultivator household was in the range 5·77 to 5·54, while the average size of the agricultural labour

household was in the range 4·33 to 4·03. The adults-children ratio among the cultivator households was approximately 3·4 : 2·2 as compared with the ratio of 2·6 : 1·6 among the agricultural labour households. Secondly, among the cultivator households, the average size of the household below the poverty-line and the average size of the household above the poverty-line did not differ much. On the other hand, for the agricultural labour households, the average size of the household above the poverty line was considerably less than the average size of the household below the poverty-line, though one must take into account here that the size of the sample agricultural labour households above the poverty-line is rather small. Finally, it is worth noting that the proportion of children in the population of households was more or less the same for both cultivator and agricultural labour households, but the households below the poverty line in both cases had a significantly higher proportion of children. The proportion of children in the cultivator households, taking the average of the 3 years into consideration, came to 44·5% for those below the poverty-line as compared with 32·5% for those above the poverty-line. For the agricultural labour households, the proportion was 41·8% for those below the poverty line and 13·3% for those above the poverty-line.

4.03. Age of the Head of the Household

Table 4.02 gives the distribution of households below and above the poverty-line according to the age-group of the head of the household. The distribution of cultivator households in the different age-groups no doubt changes significantly in the year 1971-72 on account of the substantial increase in the percentage of households above the poverty-line in the year. The data do not, however, give any evidence of concentration of poverty in the higher age-groups, which is also true of the agricultural labour households.

4.04. Educational Status of the Head of the Household

Table 4.03 gives the distribution of households below and above the poverty line according to the educational status of the head of the household. The data gives some evidence of the negative correlation between the level of education of the head of the household and poverty. For instance, in 1969-70, 82·6% of the

Table 4.01—Population of the Households, Household Size and Composition.

Item	1969-70			1970-71			1971-72			3 years combined in percentages		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10	11	12	13
Cultivator Households												
Total Population: Of which :	548	335	213	566	366	200	574	158	416	100·0	100·0	100·0
Adult males	163	96	67	171	103	68	184	38	146	30·7	27·6	33·9
Adult females	168	96	72	173	103	70	178	41	137	30·7	27·9	33·6
Children	217	143	74	222	160	62	212	79	133	38·6	44·5	32·5
Average size of household	5·54	5·49	5·61	5·77	5·90	5·55	5·74	5·85	5·69	5·68	5·73	5·64
Agricultural Labour Households												
Total Population : Of which :	161	140	21	164	142	22	173	156	17	100·0	100·0	100·0
Adult Males	50	41	9	51	40	11	53	45	9	31·0	28·8	46·7
Adult females	50	40	10	48	39	9	57	50	7	31·1	29·4	40·0
Children	61	59	2	65	63	2	63	61	2	37·9	41·8	13·3
Average size of household	4·03	4·52	2·33	4·33	4·58	2·75	4·33	4·73	2·43	4·18	4·61	2·50

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

Table 4.02—Distribution of Households according to Age of the Head of the Household.

Age in years	1969–70			1970–71			1971–72		
1	2	3	4	5	6	7	8	9	10
Cultivator Households									
21—30	14 (100·0)	8 (57·1)	6 (42·9)	9 (100·0)	5 (55·6)	4 (44·4)	8 (100·0)	1 (12·5)	7 (87·5)
31—40	32 (100·0)	20 (62·5)	12 (37·5)	29 (100·0)	19 (65·5)	10 (34·5)	31 (100·0)	12 (38·7)	19 (61·3)
41—50	22 (100·0)	15 (68·2)	7 (31·8)	25 (100·0)	14 (600·0)	10 (50·0)	27 (100·0)	9 (33·3)	18 (66·7)
51—60	22 (100·0)	14 (63·6)	8 (36·4)	18 (100·0)	12 (66·7)	6 (33·3)	18 (100·0)	12 (11·1)	16 (88·9)
61—70	8 (100·0)	4 (50·0)	4 (50·0)	13 (100·0)	9 (69·2)	4 (30·8)	13 (100·0)	3 (23·1)	10 (76.9)
70+	1 (100·0)	—	1 (100·0)	4 (100·0)	2 (50·0)	2 (50·0)	3 (100·0)	—	3 (100.0)
Total	99	61	38	98	62	36	100	27	73
Agricultural Labour Households									
21—30	5 (100·0)	4 (80·0)	1 (20·0)	2 (100·0)	2 (100·0)	—	5 (100·0)	5 (100·00)	—
31—40	17 (100·0)	13 (76·5)	4 (23·5)	16 (100·0)	14 (87·5)	2 (12·5)	14 (100·0)	11 (78·6)	3 (21.4)
41—50	13 (100·0)	10 (76·9)	13 (23·1)	14 (100·0)	8 (72·7)	3 (27·3)	19 (100·0)	9 (100·0)	—
51—60	4 (100·0)	3 (75·0)	1 (25·0)	7 (100·0)	5 (71·4)	2 (28·6)	10 (100·0)	7 (70·0)	3 (30.0)
61—70	1 (100·0)	1 (100·0)	—	3 (100·0)	2 (66·7)	1 (33·3)	2 (100·0)	1 (50·0))	1 (50·0)
Total	40	31	9	39	31	8	40	33	7

N.B. : Figures in brackets indicate percentages to total.

Table 4.03—Distribution of Households according to Educational Status of the Head of the Household.

Educational Level	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Cultivator Households									
No formal education	46 (100·0)	38 (82·6)	8 (17·4)	46 (100·0)	36 (78·3)	10 (21·7)	46 (100·0)	13 (28·3)	33 (71·7)
Upto 5th Class	32 (100·0)	17 (53·1)	15 (46·9)	31 (100·0)	19 (61·3)	12 (38·7)	33 (100·0)	13 (39·4)	20 (60·6)
6th to 10th Class	11 (100·0)	4 (35·4)	7 (63·6)	11 (100·0)	4 (36·4)	7 (63·6)	11 (100·0)	1 (9·1)	10 (90·9)
S S L C	8 (100·0)	2 (25·0)	6 (75·0)	8 (100·0)	2 (25·0)	6 (75·0)	9 (100·0)	—	9 (100·0)
Intermediate	2 (100·0)	—	2 (100·0)	2 (100·0)	1 (50·0)	1 (50·0)	1 (100·0)	—	1 (100·0)
Agricultural Labour Households									
No formal Education	36 (100·0)	27 (75·0)	9 (25·0)	35 (100·0)	27 (77·1)	8 (22·9)	33 (100·0)	26 (78·8)	7 (21·2)
Upto 5th Class	3 (100·0)	3 (100·0)	—	4 (100·0)	4 (100·0)	—	6 (100·0)	6 (100·0)	—
6th to 10th Class	1 (100·0)	1 (100·0)	—	—	—	—	1 (100·0)	1 (100·0)	—

N.B. : B.P.L. : Below Poverty Line.
APL : Above Poverty Line.
Figures in brackets indicate percentages to total.

cultivator households with no formal education were below the poverty-line. This percentage rapidly decreased as the level of school education increased and reached 25·0% for those with S.S.L.C. qualification. In the case of agricultural labour households, this correlation is not found. During the three years of study 75% to 79% of the households in the category of 'no formal education' were below the poverty line and 25% to 21% above the poverty line.

B. Caste and Occupation

4.05. Caste Composition

The caste composition of the households below and above the poverty-line during the 3 years of the study is shown in Tables 4.04 (A & B). For the purpose of analysis, the castes are divided into 3 categories : (a) Higher Level castes (Forward castes), (b) Middle Level castes (Backward castes) and (c) Lower Level castes(Scheduled Castes and Scheduled Tribes, and Christians).The first category covers brahmin, kshatriya, kapu, kamma, and reddy castes. The second category covers setti, balija, vada balija, weaver, potter, barber and washerman castes. The third category covers harijan and other scheduled castes and christians. The Tables bring out some interesting facts. Among the cultivator households in the year 1969-70 for instance, 61% belonged to the Higher Level castes and 49·1% of them being below the poverty-line ; 31% belonged to the Middle Level castes and 77·4% of them being below the poverty-line, and 8·0% belong to the Lower Level castes, and all of them were below the poverty-line. The picture is more or less the same for the year 1970-71 showing that the incidence of poverty increases as the place of a household becomes lower in the caste hierarchy, and the data for 1971-72 also lend support to this conclusion. It must, however, be borne in mind that the percentage of poverty households in the higher level castes was not insignificant.

It is interesting to note that the higher level castes of brahmin, kshatriya and kamma were not represented at all in the sample of agricultural labour households. 8 to 20 per cent of the households belonged to the other higher level castes of kapu and reddy, and

all of them were below the poverty-line. About 51 per cent of the households belonged to the Middle level castes and 30 per cent to the Lower Level castes (mainly Harijans), and about 75 per cent of the households in both categories were below the poverty line.

4.06. Occupational Diversification

Table 4.05 gives the occupational diversification of the selecten households below and above the poverty-line both among the cultivator and agricultural labour households. The patter of occupational diversification was more or less the same during the 3 years. About 70% of the cultivator households had dairying as an occupation in addition to cultivation and about 50% had also agricultural labour as an occupation. Dairying is more widely associated with cultivation than agricultural labour among the households above the poverty line.

In the case of agricultural labour househoIds, a very small proportion of households only had any occupations other than agricultural labour and non-agricultural labour. It means rhat they are mostly dependant on manual labour occupations while the cultivator households depend not only on cultivation but two other important occupations, *viz.*, dairying and agricultural labour, and a number of other less important occupations.

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Table 4·04A—Caste Composition of the Selected Cultivator Households

Caste	1969-70					1970-71					1971-72				
	Total	BPL	%	APL	%	Total	BPL	%	APL	%	Total	BPL	%	APL	—
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Brahmin	3	—	—	3	7.89	2	—	—	2	5·55	2	—	—	2	2·73
Kshatriya	1	—	—	1	2·63	1	1	1·61	—	—	1	—	—	1	1·37
Kapu	26	17	27·86	9	23·68	24	18	29·03	6	16·67	26	7	25·94	19	26·03
Kamma	14	2	3 28	12	31·59	15	4	6·45	11	30·56	16	—	—	16	21·92
Reddy	17	11	18·03	6	15·79	16	10	16·13	6	16·67	16	3	11·11	13	17·81
High Level Castes	61	30	49·17	31	81·58	58	33	53·22	25	69·45	61	10	37·05	51	69·86
	(100·00)	(49·18)		(50·82)		(100·00)	(56·90)		(43·10)		(100·00)	(16·39)		(83·61)	
	19	14	22·95	5	13·16	21	15	24·19	6	16 67	21	12	44·44	9	12·34
Setti Balija	5	4	6 56	1	2·63	5	2	3·23	3	8·32	5	1	3·70	4	5·48
Viswa Brahmin	3	2	3·28	1	2·63	3	3	4·84	—	—	3	1	3·70	2	2·73
Weaver	1	1	1·64	—	—	1	—	—	1	2·78	1	—	—	1	1·37
Potter	2	2	3·28	—	—	2	2	3·23	—	—	2	1	3·70	1	1·37
Barber	1	1	1·64	—	—	1	1	1·61	—	—	1	—	—	1	1·37
Washerman															
Middle Level Castes	31	24	39·35	7	18·42	33	23	37·10	10	27·77	33	15	55·54	18	24·66
	(100·00)	(77·42)		(22·58)		(100·00)	(69·70)		(30·30)		(100·00)	(45·45)		(54·55)	
Harijan	7	7	11·48	—	—	7	6	9·68	1	2·78	6	2	7·41	4	5·48
	(100·00)	(100·00)				(100·00)	(85·71)		(14·29)		(100·00)	(33·33)		(66·67)	
Low Level Castes	7	7	11·48	—	—	7	6	9·68	1	2·78	6	2	7·41	4	5·48
	(	)(				(	)(		(	)	(	)( )		(	)
GRAND TOTAL:	99	61	100·00	38	100·00	98	62	100·00	36	100·00	100·00	27	100·00	73	100·00
	(100·00)	(61·62)		(38·38)		(100·00)	(63·24)		(36·76)		(100·00)	(27·00)		(73·00)	

N. B.—Figures in brackets indicate percentages to row total.
BPL : Below Poverty Line
APL : Above Poverty Line
The small changes in caste composition in 1970–72 are due to replacement of households in the sample.

TABLE 4.04B.—Caste Composition of the Selected Agricutural Labour Households.

Caste	1969-70					1970-71					1971-72				
	Total	BPL	%	APL	%	Total	BPL	%	APL	%	Total	BPL	%	APL	%
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Kapu	2	2	6'45	—	—	3	3	9·68	—	—	7	7	21·21	—	—
Reddy	1	1	3.23	—	—	1	1	3·23	—	—	1	1	3·03	—	—
Higher-level Castes	3	3	9·68	—	—	4	4	12·91	—	—	8	8	24·24	—	—
	(100·00)	(100·00)				(100·00)	(100·00)				(100·00)	(100·00)			
Washerman	1	1	3·23	—	—	1	1	3·23	—	—	1	1	3·03	—	—
Setti Balija	20	15	48·38	5	55·56	19	16	51·80	8	37·50	19	16	48·48	3	42·86
Middle-level Castes	21	16	51·61	5	55·56	20	17	54·82	3	37·50	20	17	51·52	3	42· 86
	(100·00)	(76·19		(23·81)		(100·00)	(85·00)		(85·00)		(100·00)	(85·00)		(15·00)	
Harijan	16	12	38·71	4	44·44	14	10	32·26	4	50·00	11	8	24·24	3	42·86
Christian	—	—	—	—	—	1	—	—	1	12·50	1	—	—	1	14·28
Lower-level Castes	16	12	38·71	4	44·44	15	10	32·26	5	62·50	12	8	24·24	4	57·14
	(100·00)	(75·00)		(25·00)		(100·00)	(66·67)		(33·33)		(100·00)	(66·67)		(33·33)	
Grand Total	40	31	100·00	9	100·00	39	31	100·00	8	100·00	40	33	100·00	7	100·00
	(100·00)	(77·50)		(22·50)		(100·00)	(79·49)		(20·51)		(100·00)	(82·50)		(18·50)	

N.B.—Figures in brackets indicate percentages to row total.
BPL : Below Poverty Line
APL : Above Poverty Line
The small changes in caste composition in 1970-71 and 1971-72 are due to replacement of households in the sample.

TABLE 4.05.—Occupational Diversification

Occupation	Cultivator Households*									Agricultural Labour Households								
	1969-70			1970-71			1971-72			1969-70			1970-71			1071-72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Dairy	68	35	33	65	37	28	70	13	57	2	1	1	3	2	1	3	2	1
Agricultural Labour	53	34	19	46	35	11	47	19	28	40	31	9	39	31	8	40	33	7
Non-Agricultural Labour	3	3	—	4	4	—	3	2	1	4	2	2	9	7	2	2	1	1
Industry	6	3	3	7	2	5	7	1	6	—	—	—	—	—	—	—	—	—
Trade	6	2	4	7	3	4	6	2	4	2	1	1	—	—	—	1	1	—
Service	8	4	4	9	5	4	1	1	10	4	3	1	1	1	10	1	1	—
Profession	6	5	1	7	5	2	6	3	3	1	1	—	1	1	—	1	1	—
Arts & Crafts	3	1	2	3	1	2	2	—	2	—	—	—	—	—	—	—	—	—
Hiring out work cattle	—	—	—	—	—	—	—	—	—	2	1	1	2	1	1	1	1	—
Rearing of Milch cattle	—	—	—	—	—	—	—	—	—	4	3	1	4	4	—	—	—	—
Others	8	7	1	7	6	1	6	2	4	—	—	—	—	—	—	—	—	—

N.B.—BPL : Below Poverty Line
APL : Above Poverty Line
(*)For cultivator households the occupations listed are other than cultivation.

C. Work Participation and Employment

4.07. Economic Status and Percentage of Non-Workers

Table 4.06 gives the distribution of the members of the households among 3 categories : (1) self-supporting members, (2) earning dependents and (3) non-workers. The distinction between self-supporting members and earning dependants cannot be precisely made. It is however to be noted that the proportion of earning dependants in the population of the cultivator households was 9-10% as compared with 27 to 28% among the agricultural labour households, which is partly reflected in the higher participation rate of the labour households. A high percentage of the members are found to be non-workers, the proportion in the households above and below the poverty-line being more or less the same. On the other hand, among the agricultural labour households, only 43 to 46% of the members are non-workers.

4.08. Participation Rates of Males, Females and Children

The participation rates of males, females and children in the working members of the cultivator and agricultural labour households are given in Table 4.07. Among the cultivator households below the poverty-line, the participation rate varied between 92% to 96% for males, 27% to 39% for females and 0·5% to 6·3% for children, during the three years of study. For the households above the poverty line, the rate varied between 84% to 85% for males, 11% to 18% for females and 0·0% to 1·4% for children. This picture changes considerably for agricultural labour households. While the participation rate for males was 96% which was about the same for the cultivator households, the rates for females and children varied between 68% to 79% and 7.9% to 8.2% respectively.

4.09. Employment and Underutilisation of Labour Time

Table 4·08 gives the data relating to the actual man-days worked per adult male unit and per household for both categories of cultivator and agricultural labour households below and above the poverty-line. The actual employment of workers in the household in man-days is arrived at on the basis of information collected from the sample households about the labour time utilised in agri-

culture and wage paid labour, and on the basis of assumed reasonable income-employment ratios for non-agricultural and non-wage paid labour occupations.

For the cultivator households the number of man-days of employment per adult male unit on average came to 131 to 1969-70, 176 in 1970-71 and 182 in 1971-72, the households below the poverty-line having about 10 to 15% more employment. This means that, assuming a norm of 300 man-days per adult unit per year, 40 to 50% of the labour time available to the households remains unutilised, which is somewhat less for the households below the poverty-line. For the agricultural labour households, the average employment per adult male unit per year came to 191 in 1969-70, 214 in 1970-71 and 232 in 1971-72, the households below the poverty-line showing a little less employment. This means again, assuming a norm of 300 days per adult male unit per year, 20 to 35% of the labour time available to the households remains unutilised. What comes out from the analysis of data is that there is considerable underutilisation of labour time in both cultivator and agricultural labour households, the underutilisation being considerably less in the agricultural labour and cultivator households below the poverty-line.

Table 4.06—Econom.c Status of the Household Members

Economic Status	1969 70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
				Cultivator Households					
Total population (No.)	548	335	213	566	366	200	574	158	416
Of which :									
Self supporting members(%)	27	27	28	26	25	28	26	22	28
Earning Dependants (%)	9	13	3	10	11	8	9	13	7
Non-Workers (%)	64	60	69	64	64	64	65	65	65
				Agricultural Labour Households					
Total Population (No.)	161	140	21	164	142	22	173	156	17
Of which :									
Self supporting members(%)	29	25	52	27	25	45	27	24	53
Earning Dependents (%)	28	26	38	27	24	45	28	28	35
Non-workers (%)	43	49	10	46	51	10	45	48	12

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

Table 4.07—Participation Rates of Males, Females and Children

Category	Total Population				Workers				Participation rates (%)			
	Males	Fe-males	Child-ren	Total	Males	Fe-males	Child-ren	Total	Males	Fe-males	Child-ren	Total
1	2	3	4	5	6	7	8	9	10	11	12	13
Cultivator Households												
1969-70 :												
Below Poverty Line	96	96	143	335	92	35	9	136	96	36	6·3	41
Above Poverty Line	67	72	74	213	57	8	1	66	85	11	1·4	31
Total	163	168	217	548	149	43	10	202	91	26	4·6	37
1970-71 :												
Below Poverty Line	103	103	160	366	96	28	8	132	93	27	0·5	36
Above Poverty Line	68	70	62	200	58	13	—	71	85	18	—	36
Total	171	173	222	566	154	41	8	203	90	24	0·4	36
1971-72 :												
Below Poverty Line	38	41	79	158	35	16	3	54	92	39	3·8	34
Above Poverty Line	146	137	133	416	122	25	1	148	84	18	0·8	36
Total	184	78	212	574	157	41	4	202	85	23	1·9	35

					Agricultural Labour Households							
1969-70 :												
Below Poverty Line	41	40	59	140	39	29	4	72	95	73	6·8	42
Above Poverty Line	9	10	2	21	9	9	1	19	100	99	50	90
Total	50	50	61	161	48	38	5	91	96	76	8	57
1970-71 :												
Below Poverty Line	40	39	63	142	38	30	1	69	95	77	1·6	49
Above Poverty Line	11	9	2	22	11	8	1	20	100	89	50	91
Total	51	48	65	164	49	38	2	89	96	79	3·1	54
1971-72 :												
Below Poverty Line	45	50	61	156	43	32	5	80	96	64	8·2	51
Above Poverty Line	8	7	2	17	8	7	—	15	100	100	—	88
Total	53	57	63	173	51	39	5	95	96	68	7·9	55

Table 4.08—Employment

Item	1969–70			1970–71			1971–72		
	BPL	APL	Total	BPL	APL	Total	BPL	APL	Total
1	2	3	4	5	6	7	8	9	10
Cultivator Households									
1. No. of Households	61	38	99	62	36	98	27	73	100
2. Total number of workers	136	66	202	132	71	203	54	148	202
3. Workers in adult male units	119·95	62·86	182·81	118·76	66·71	185·47	47·22	139·25	186·47
4. Adult male units per household	1.97	1·63	1·85	1·92	1·85	1·89	1·75	1·91	1·86
5. **Employment in man-days:**	165833	7395	23978	22519	10060	32579	9186	24679	33865
(i) Per adult male unit	138·25	117·65	131·16	189·62	150·80	175·65	194·53	177·23	181·61
(ii) Per household	271·85	194·62	242·20	363·21	279·44	332·43	340·21	338·07	338·65
Agricultural Labour Households									
1. No. of Households	31	9	40	31	8	39	33	7	40
2. Total number of workers	72	19	91	69	20	89	80	15	95
3. Workers in adult male units	60·43	15·53	75·96	58·60	16·86	75·46	66·94	12·69	79·63
4. Adult male units per household	1·95	1·72	1·90	1·89	2·11	1·93	2·03	1·81	1·99
5. **Employment in man-days :**	11210	3310	14520	12327	3830	16157	15474	3001	18475
(i) Per adult male unit	185·50	213·14	191·15	210·36	227·19	214·12	231·16	236·49	232·01
(ii) Per household	361·60	367·79	362·99	397·65	478·79	414·30	468·90	428·72	461·87

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

(Contd. in next page)

Foot Note : Where employment is directly available as in the case of cultivators, agriculture and non-agriculture labour, the actual number of days employed by the workers are taken as they are. In the case of other occupations like non-agricultural and non-wage paid labour, incomes reported from these occupations are divided by the relevant wage rates prevailing in the area for these occupations. The following are some of the wage rates used:

Cart driving	Rs. 4 per 8 hour man-day.
Jutka driving	Rs. 4 per 8 hour man-day.
Rickshaw driving	Rs. 4 per 8 hour man-day.
Tailoring	Rs. 8 per 8 hour man-day.
Washerman	Rs. 4 per 8 hour man-day.
Barber	Rs. 3 per 8 hour man-day.
Brick laying	Rs. 5 per 8 hour man-day.
Rice commission agent	Rs. 8 per 8 hour man-day.
Vegetable vendor	Rs. 5 per 8 hour man-day.
Others	Rs. 4 per 8 hour man-day.

D. Land Holdings and Tenure

4.10. Size and Composition of Operational Holdings and Owner-Holdings

Table 4.09 gives the data about the operational holdings of the selected cultivator households. It may be noted at the outset that all the selected holdings are completely irrigated, and there is no difference in this regard between the holdings below and above the poverty-line. The average operated area for the holdings below the poverty-line was obviously much less than the average operated area for the holdings above the poverty-line, being approximately 1/3rd to 1/4th of the latter. The percentage of leased-in area for the holdings below the poverty-line was 63% in 1969-70, and 60% in 1970-71 and 1971-72. This implies that rents paid on leased-lands would be a heavy liability for the cultivators below the poverty line. In contrast, the households above the poverty-line have much less liability for payment of rents on leased-in lands. (See section 4.14 also for the data about the actual rents paid as farm cost). The percentage of leased-out land to total owned area was 13 to 16% for the households above the poverty-line and less than 10% for those below the poverty-line.

4.11 Tenancy

Table 4.10 gives the distribution of the selected cultivator households according to the nature of tenure. About 50% of the cultivator households are either part-owners or pure tenants. In 1969-70 and 1970-71, the proportion of part owners and pure tenants came to 60·7% and 54·8% in the households below the poverty-line respectively. In the households above the poverty-line these two types of households came to 36·8% and 33·3% respectively in 1969-70 and 1970-71. In 1971-72, however, the proportion of these classes of tenants came down to 40·7% in the holdings below the poverty-line and increased to 43·8% in the holdings above the poverty-line.

Table 4.09—Owned Area, Leased -in and Leased-out Area and Operated Area —per Household

(In hectares)

Item	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
1. Owned area	1·41	0·35	3·11	1·40	0·42	3·09	1·47	0·20	1·94
2. Leased-in area	0·55	0·59	0·48	0·49	0·59	0·33	0·45	0·29	0·52
3. As a percentage of operated area	31·0	63·0	15·0	29·0	60·0	1·0	26·0	60·0	24·0
4. Leased-out area	0·21	0·02	0·51	0·19	Neg.	0·50	0·19	0·02	0·26
5. As a % of owned area	14·9	5·7	16·4	13·6	Neg.	16·2	12·9	10·0	13·4
6. Operated area (Size of holding)	1·76	0·93	3·10	1·70	0·99	2·92	1·74	0·48	2·20
7. Net area sown*	1·73	0·93	3·04	1·68	0·99	2·88	1·72	0·48	2·18

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

(*) The entire net area sown is irrigated.

able 4.10—Distribution of the Number of Cultivator Household according to Type of Tenancy

Tenant classification	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Full owners	48 (48·5)	24 (39·3)	24 (63·2)	52 (53·1)	28 (45·2)	24 (66·7)	57 (57·0)	35 (57·3)	41 (56·2)
Part owners	24 (24·2)	14 (23·0)	10 (26·3)	21 (21·4)	13 (20·9)	8 (22·2)	20 (20·0)	24 (24·8)	16 (21·9)
Pure Tenants	27 (27·3)	23 (37·7)	4 (10·5)	25 (25·5)	21 (33·9)	4 (11·1)	23 (23·0)	7 (25·9)	16 (21·9)
Total	99 (100·0)	61 (100·0)	38 (100·0)	98 (100·0)	62 (100·0)	36 (100·0)	100 (100·0)	27 (100·0)	73 (100·0)

N.B. : Figures in brackets indicate percentages to total.

BPL : Below Poverty Line.
APL : Above Poverty Line.

Table 4.11 (A)—Asset Structure—Per Household

Item	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Cultivator Households									
Total Value of assets (Rs.)	55091	14613	120067	55369	17510	120570	56919	7879	75057
Of which in (%)									
Agricultural Land	77·19	69·02	78·78	77·43	70·32	79·20	77·98	64·23	78·52
Livestock	1·87	3·36	1·57	1·75	3·09	1·41	1·58	1·75	1·58
Other Agricultural Assets	2·54	1·89	2·68	2·45	2·00	2·57	2·50	1·88	2·51
Total Agricultural Assets	81·60	74·27	83·03	81·63	75·41	83·18	82·06	67·86	82·61
Residential Houses	11·43	19·32	9·88	11·30	16·96	9·88	10·98	24·56	10·45
Other non-agricultural Assets	2·56	2·18	2·64	2·48	2·32	2·54	2·26	2·26	2·27
Total non-agricultural Assets	13·99	21·50	12·52	13·78	19·28	12·42	13·24	26·82	12·72
Total Financial Assets	4·41	4·23	4·45	4·59	5·31	4·40	4·70	5·32	4·67

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Table 4.11 (A)—Asset Structure—Per Household—(Contd.)

	Agricultural Labour Households								
Total Value of Assets (Rs.)	888	887	891	845	805	999	792	772	88
Of which in (%)									
Milch Cattle	0·99	0·55	2·49	1·23	0·92	2·19	1·08	0·76	2·41
Other Agricultural Assets	5·14	5·61	3·52	6·14	6·48	5·07	4·11	4·05	4·30
Total Agricultural Assets	6·13	6·16	6·01	7·37	7·40	7·26	5·19	4·81	6·71
Residential Houses	58·88	55:15	71·67	55·99	59·79	444·10	55·93	52·58	69·68
Other non-agricultural Assets	16·74	19·32	7·92	17·71	10·18	41·26	19·05	22·48	5·02
Total non-agricultural Assets	75·62	74·47	79·59	73·70	69·97	85·36	74 98	75·06	74·70
Financial Assets	18·25	19·37	14·40	18·93	22·63	7·38	19·83	20 13	18·59

N.B. : BPL : Below Poverty Line
APL : Above Poverty Line

Table 4.11 (B)—Ownership of Livestock, Farming Implements, etc.

Item	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Ownership of Livestock :									
Milch Animals :									
No. of Households reporting	61	30	31	64	36	28	66	11	55
No. of Animals	133	45	88	147	60	87	158	11	147
Work Animals :									
No. of Households reporting	51	24	27	46	24	22	38	2	36
No. of Animals	143	48	95	137	53	84	115	44	111
Operated area per pair (in hectares)	2·43	2·36	2·48	2·43	2·32	2·50	3·02	6·54	2·89
Young Stock :									
No. of Households reporting	31	19	12	42	24	18	60	12	48
No. of Animals	57	29	28	91	40	51	141	14	127
Ownership of Farming Implements : Traditional (Minor) :									
No. of Households reporting	67	36	31	63	37	26	63	9	54
Value per sample Household (Rs.)	23·06	20·44	40·71	17·90	10·01	31·48	17·97	5·04	22·75

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

(Contd. on next page)

TABLE 4.11 (B)—Ownership of Livestock, Farming Implements, etc.—(Contd.)

Item	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Sugarcane Crushers :									
No. of Households reporting	2	—	2	2	—	2	2	—	2
Value per sample Household (Rs.)	73·74	—	193·11	67·04	—	182·50	58·40	—	80·00
Irrigation Equipment : Traditional :									
No. of Households reporting	1	—	1	3	1	2	4	—	4
Value per sample Household (Rs.)	0·80	—	2·10	15·66	7·66	29·44	22·82	—	31·26
Oil-Engines :									
No. of Households reporting	10	1	9	10	2	8	12	—	12
Value per sample Household (Rs.)	398·50	16·39	930·26	393·93	68·23	954·87	406·27	—	556·53
Electric Motors :									
No. of Households reporting	6	—	6	5	—	5	6	—	6
Value per sample Household (Rs.)	115·60	—	304·21	100·04	—	272·33	117·13	—	160·45
Filter-Points :									
No. of Households reporting	11	1	10	11	2	9	13	—	13
Value per sample Household (Rs.)	189·95	10·00	479·08	176·88	15·00	455·67	170·09	—	233·00
Transport Equipment :									
No. of Households reporting	28	11	17	27	13	14	25	—	25
Value per sample Household (Rs.)	115·76	61·48	202·89	115·66	73·17	188·84	106·54	—	145·66

N.B.— BPL : Below Poverty Line.
APL : Above Poverty Line.

E. Farm and Non-farm Assets

4.12. Farm and Non-farm Assets

The asset structure of the selected cultivator and agricultural labour households during the 3 years of study and data regarding selected specific assets are shown in Tables 4.11 (A & B). For the cultivator households, agricultural assets constituted about 75% of the total assets, the households above the poverty-line being slightly better off in this respect. The average value of assets for the households below the poverty-line was, however, very much less than the average value for the households above the poverty-line. For instance, in the year 1969-70 the average value of assets for the households below the poverty-line was Rs. 14,613 as compared with Rs. 1,20,067 for the households above the poverty-line. The households below the poverty line had practically no modern irrigation equipment, filter-points and sugar processing equipment.

As regards agricultural labour households, the average value of assets was less than Rs. 1,000 for both types of households below and above the poverty-line, and the major asset which they possessed was only a residential house.

F. Input and Output in Agriculture

4.13. Cropping Pattern

Table 4.12 gives the cropping pattern adopted by the selected cultivator households in the 3 years. The major crops raised by the cultivator households in order of importance are traditional variety paddy, HYV paddy mainly raised in the Rabi season, and sugarcane. The percentage of area under the commercial crop, sugarcane, is generally higher in the holdings above the poverty-line. In two out of the three years, the percentage of area under HYV paddy in the Rabi season was also found to be considerably high in the holdings above the poverty-line.

4.14. Input Structure in Farming

The input structure of the cultivator households is given in Table 4.13. It is evident that cultivation by all the households

below and above the poverty-line is high cost cultivation characterised by heavy investment in modern inputs. The average cost of cultivation (Cost A_2) in all the cultivator households ranged between Rs. 1,907 and Rs. 2,267 per hectare during the three-year period under study. It is not possible to make a general observation that the average cost is significantly higher in the holdings above the poverty-line. However, if Cost A_1 per hectare is considered for purposes of comparison, the holdings below the poverty-line come out unambiguously as better placed and show Rs. 500 to Rs. 800 less cost per hectare as compared with the holdings above the poverty-line.

The most significant differences in the input structure between the two types of holdings are related to the inputs of hired human labour, manures and fertilisers, rents paid on leased-in lands and other costs which include cost of insecticides and pesticides, hire charges for jaggery-making equipment and jaggery-making charges, and land revenue. The cost of hired human labour for holdings below the poverty-line was Rs. 405 per hectare in 1969-70, Rs. 285 in 1970-71 and Rs. 118 in 1971-72 as compared with Rs. 629, Rs. 546 and Rs. 448 for holdings above the poverty-line. In the case of manures and fertilisers, the per hectare cost for the holdings below the poverty-line was Rs. 429 in 1969-70, Rs. 308 in 1970-71 and Rs. 300 in 1971-72, as compared with Rs. 455 in 1969-70, Rs. 425 in 1970-71 and Rs. 459 in 1971-72 for the holdings above the poverty-line. The rents paid on leased-in lands per hectare for the holdings below the poverty-line came to be as high as Rs. 823 in 1969-70, Rs. 699 in 1970-71 and Rs. 732 in 1971-72, in comparison with Rs. 215, Rs. 142 and Rs. 312 respectively during the 3 years for holdings above the poverty-line. In regard to other costs the amount was Rs. 102 in 1969-70 and 1970-71, and Rs. 71 in 1971-72 for the households below the poverty-line as compared with Rs. 283 in 1969-70, Rs. 296 in 1970-71 and Rs. 263 in 1971-72. The detailed tables given in the Appendix show more clearly that the burden of rent charges was heaviest on the poverty holdings in the per capita income group below Rs. 250, amounting to 36·7% of the total value of inputs in 1969-70, 39% in 1970-71 and 53% in 1971-72.

4.15. Yields of Principal Crops

The yields obtained for the principal crops on the cultivator holdings both below and above the poverty-line are given in Table 4.14. As paddy is the major crop raised in the area by both types of holdings, a comparison of the yield rates of traditional paddy between them shows that the yield rates are not significantly different between the two types of holdings. However, in regard to HYV paddy (Rabi season), the data give clear evidence of the superior position of the holdings above the poverty-line in all the 3 years, which was partly due to the differences in the input of manures and fertilizers.

4.16. Farm Business Income

Profits per hectare, both on Cost A_2 basis and on Cost A_1 basis are shown in Table 4.15. As one should expect, profit per hectare on Cost A_2 basis is much less in the holdings below the poverty-line. For instance, for the holdings below the poverty-line, profit per hectare on Cost A_2 basis was Rs. 184 in the year 1969-70 and Rs. 263 in 1970-71 as compared with Rs. 890 and Rs. 931 in the two years respectively for holdings above the poverty-line. If we take Cost A_1 basis for comparison of the profits made by the two types of holdings, the profit on the holdings below the poverty-line come to Rs. 1,016 in 1969-70 and Rs. 965 in the year 1970-71, as compared with Rs. 1,123 and Rs. 1,118 respectively for holdings above the poverty-line. The difference between the two categories of holdings is thus greatly reduced if Cost A_1 basis is taken into consideration, although the holdings above the poverty-line could still claim 10 to 15% more profit.

Table 4.12—Cropping Pattern

Crop	1969-70			1970-71			1971-72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Total cropped area per household (hectares)	3·17	1·69	5·57	3·60	2·16	6·13	4·00	1·05	5·10
Of which : In Khariff :									
HYV Paddy (%)	0·06	0·80	2·73	1·20	—	1·93	0·04	—	0·04
TV Paddy (%)	45·15	50·21	44·61	40·15	45·01	37·21	37·34	43·50	36·87
Sugarcane (%)	6·09	1·94	8·44	4·21	0·57	6·41	5·42	2·21	4·70
In Rabi :									
HYV Paddy (%)	14·20	8·06	17·92	17·40	25·46	12·53	17·89	8·43	18·61
TV Paddy (%)	24·58	35·47	20·20	13·66	9·54	16·16	10·47	15·14	10·12
Sugarcane (%)	4·04	1·86	0·88	4·41	0·25	6·92	4·30	0·71	4·58
Others (%)	5·88	1·66	5·22	18·79	19·17	18·84	25·44	30·01	25·08
Total	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00	100·00
Intensity of cropping (%)	183·24	181·72	183·22	214·88	218·18	212·85	232·56	217·39	233·94

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

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Table 4.13—Farm Input Structure—per Hectare.

(In rupees and percentages)

Item	1969–70			1970–71			1971–72		
	Total 2	BPL 3	APL 4	Total 5	BPL 6	APL 7	Total 8	BPL 9	APL 10
Seed and seedlings	166·06 (7·28)	160·38 (6·74)	168·81 (7·56)	153·70 (7·94)	135·17 (7·28)	164·57 (8·29)	144·41 (7·25)	124·10 (7·83)	146·07 (7·21)
Fertilizers	409·63 (17·95)	391·46 (16·45)	418·39 (18·72)	323·96 (16·72)	259·31 (13·97)	361·91 (18·24)	353·63 (17·75)	234·89 (14·82)	363·29 (17·94)
Manures	37·22 (1·63)	37·40 (1·57)	37·12 (1·66)	58·04 (3·00)	48·92 (2·64)	63·40 (3·19)	93·11 (4·67)	64·65 (4·08)	95·43 (4·71)
Irrigation charges	223·08 (9.78)	205·03 (8.62)	230·56 (10.32)	131·98 (6.82)	91·64 (4·94)	155·66 (7·84)	183·14 (9·19)	64·42 (4.06)	192·81 (9·52)
Tractor Hire charges	84·07 (3·68)	52·46 (2·20)	101·07 (4·52)	88·99 (4·59)	51·88 (2·80)	110·77 (5·58)	93·12 (4·67)	47·59 (3·00)	96·81 (4·78)
Hired Human Labour	555·76 (24·36)	404·65 (17·01)	628·60 (28·13)	449·33 (23·20)	284·81 (15·34)	545·91 (27·51)	423·76 (21·27)	118·44 (7·47)	448·61 (22·15)
Bullock Labour	154·04 (6·75)	193·87 (8·15)	135·18 (6·05)	129·07 (6·66)	180·11 (9·70)	99·10 (4·99)	91·46 (4·59)	118·47 (7·48)	89·24 (4·41)
Other costs	224·38 (9·83)	101·82 (4·28)	282·62 (12·64)	224·46 (11·58)	101·85 (5·49)	296·42 (14·94)	248·26 (12·47)	71·46 (4·51)	262·65 (12·96)
Cost A_1	1854·24 (81·26)	1547·07 (65·02)	2002·35 (89·60)	1559·53 (80·51)	1153·69 (62·16)	1797·74 (90·58)	1630·89 (81·86)	844·22 (53·25)	1694·91 (83·68)
Rent paid on Leased-in Lands	412·97 (18·10)	823·44 (34·60)	215·12 (9·62)	348·24 (17·98)	699·20 (37·67)	142·22 (7·17)	343·81 (17·26)	732·36 (46·19)	312·17 (15·41)
Cost A_2	2267·21 (99·36)	2370·51 (99·62)	2217·47 (99·22)	1907·77 (98·49)	1852·89 (99·83)	1939·96 (97·75)	1974·70 (99·12)	1576·58 (99·44)	2007·08 (99·09)
Other expenses	14·63 (0·64)	9·08 (0·38)	17·35 (0·78)	29·31 (1·51)	3·18 (0·17)	44·65 (2·25)	17·60 (0·88)	8·88 (0·56)	18·31 (0·91)
Total expenses	2281·84 (100·00)	2379·59 (100·00)	2234·82 (100·00)	1937·08 (100·00)	1856·07 (100·00)	1984·61 (100.00)	1992·30 (100·00)	1585·46 (100·00)	2025·39 (100·00)

N.B.—Figures in brackets indicate percentages to total expenses.

Table 4.14—Yields Per Hectare of Principal Crops

(In kgs.)

Crops	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
HYV Paddy (Kharif)	3102	2698	3162	3352	—	3352	3750	—	3750
TV Paddy (Kharif)	2786	2830	2761	2582	2493	2647	3366	3236	3378
HYV Paddy (Rabi)	4669	3673	4894	1831	1104	2724	4853	4425	4868
TV Paddy (Rabi)	2298	2153	2426	1882	2045	1823	2819	2409	2866
Gingelly	311	600	233	423	392	714	368	—	368
Sugarcane :									
In terms of Cane	68946	68207	69452	76267	67736	16578	52486	79832	47482
In terms of Jaggery	8317	6306	8421	6431	5245	6465	7677	—	7677

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

Table 4.15—Profit or Loss Per Hectare from Cultivation (On Cost A_1 and A_2 Basis)

(In rupees)

	1969–70			1970–71			1971–72		
1	Total 2	BPL 3	APL n	Total 5	BPL 6	APL 7	Total 8	BPL 9	APL 10
Profits on Cost A_1 basis	1088	1016	1123	1061	965	1118	2836	2268	2882
Profits on Cost A_2 basis	660	184	890	684	263	931	2475	1526	2552

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

G. Incomes, Savings and Investments[2]

4.17. Household Income and Sources

Table 4.16 gives data about the total income of the households and the sources of income. The per capita income of the households below the poverty-line came to Rs. 202 in 1969-70, Rs. 231 in 1970-71 and Rs. 333 in 1971-72 as compared to Rs. 1194 in 1969-70, Rs. 875 in 1970-71 and Rs. 1,382 in 1971-72 for the households above the poverty-line. As regards the agricultural labour households, the per capita income was Rs. 285 in 1969-70, Rs. 294 in 1970-71 and Rs. 323 in 1971-72.

In an earlier section dealing with the occupational structure of the households it was pointed out that dairying and agricultural labour are the two other important occupations besides cultivation for the cultivator households, while other occupations did not appear to be important at all for the agricultural labour households. The cultivator households derive 80 to 90% of the income from cultivation, agricultural labour and dairying. Among them the households above the poverty-line obviously get a much larger percentage of income from cultivation than from the other two activities. Agricultural labour constitutes the maojr source of income for the households below the poverty-line and is twice as important as cultivation. In the year 1971-72, however, the share of income from cultivation exceeds the share of income from agricultural labour for these households on account of the favourable agricultural season.

As regards the agricultural labour households, agricultural labour alone provides nearly 90% of the income for both households below and above the poverty-line, and it is not possible to make any distinction between the two categories.

4.18. Consumption Expenditure Patterns

In the Table 4.17 the consumption patterns of the cultivator and agricultural labour households are presented. For the cultivator households below the poverty-line, the average household expenditure was found to be less than half of the average household expenditure of the households above the poverty-line. The expenditure on food items for the households below the poverty-line

was about 15% more, and the cash component of expenditure on food items was also 16% to 17% higher.

The consumption pattern of the agricultural labour households shows that 75 to 80% of the expenditure was on food items for both categories of households and not much of distinction can be made in this regard. The cash expenditure on food items as a proportion of the total expenditure came to more than 90% n the year 1969-70 and nearly 100% in the years 1970-71 and 1971-72.

4.19. Household Savings

Table 4.18 gives information about the estimated household savings and savings-income ratio for the cultivator as well as agricultural labour households. As one should expect, the household saving below the poverty-line was either negative or small for both the categories of households. For the cultivator households above the poverty-line, the saving-income proportion was found to be 27·8% in 1969-70, 19·4% in 1970-71 and 34·6% in. 1971-72, savings estimated according to the Balance Sheet method For the few agricultural labour households above the poverty-line there is substantial saving and the saving ratio was of the same order as for the cultivator households.

4.20. Investments

The investments in agricultural and other assets made by the selected cultivator households for the 3 years is shown in Table 4.19 (A). The relevant information is provided under three heads : (a) investment by way of purchase of assets including land, (b) investment by way of construction or improvement of old and new assets, and (c) sale of assets. The data bring out three significant facts.. Firstly, the average value of investment by the households above the poverty-line came to Rs. 1,439 per household in 1969-70, Rs. 2,300 in 19070-71 and Rs. 1,596 in 1971-72. Investment by the households below the poverty-line was small or negligible. Secondly, 22% of the net investment in 1969-70 and 40% in 1970-71 and 1971-72, constituted investment in net purchase of land by the cultivator households above the poverty-line, whereas for the households below the poverty-line, there was net sale of

Table 4.16—Share of Different Activities in Total Income—Per Household.

Item	Cultivator Households								
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Total Income Per Household (Rs.)	2708	1111	6693	2650	1366	4862	6273	1946	7873
Of which :									
Agricultural	2361	915	6104	2108	1101	4038	5780	1563	7339
Non-Agricultural	347	196	589	470	265	824	493	383	534
of the Total Income :									
Cultivation (%)	42·82	15·33	41·06	43·87	19·18	55·83	68·50	37·96	71·29
Dairying (%)	14·01	15·17	10·73	9·82	14·45	7·58	7·80	10·92	7·52
Agricultural Labour (%)	11·43	35·84	23·73	14·93	35·91	4·77	6·74	28·64	4·73
Other Agricultural Activities (%)	18·93	16·01	15·68	13·62	11·04	14·87	9·10	2·79	9·68
Total Agricultural Activities (%)	87·19	82·35	91·20	82·24	80·58	83·05	92·14	80·31	93·22
Industry (%)	3·09	4·03	2·18	4·39	3·01	5·05	2·10	2·97	2·02
Trade (%)	4·10	2·29	3·71	5·63	3·34	6·74	2·00	4·83	1·74
Service (%)	4·32	4·74	3·29	5·49	5·97	5·25	3·80	1·05	4·06
Profession (%)	1·27	4·60	0·12	1·22	3·32	0·20	0·64	4·68	0·27
Non-Agricultural Labour(%)	0·79	3·11	—	1·20	3·67	—	0·45	3·12	0·20
Others (%)	—0·76	—1·12	—0·50	—0·17	—0·11	—0·29	—1·13	—3·04	—1·51
Total Non-Agricultural Activities (%)	12·81	17·65	8·80	17·76	19·42	16·95	7·86	19·69	6·78
Per Capita Income (Rs.)	489·23	202·23	1194·08	458·86	231·37	875·15	1092·84	332·60	1181·58

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

(Contd.)

Table 4.16—Share of Different Activities in Total Income—Per Household (Contd. from Previous page)

Item	Agricultural Labour Households								
	1969–70			1970–71			1971–72		
1	Total 11	BPL 12	APL 13	Total 14	BPL 15	APL 16	Total 17	BPL 18	APL 19
Total Income per Household (Rs)	1149	1121	1244	1238	1206	1363	1398	1379	1488
Of which :									
Agricultural	1011	1001	1044	1110	1020	1306	1327	1312	1396
Non -Agricultural	138	120	200	128	146	57	71	67	92
Of the Total Income :	—	—	—	—	—	—	—	—	—
Cultivation (%)	—	—	—	—	—	—	—	—	—
Dairying (%)	0·44	0·03	1·80	0·39	0·57	—0·22	1·05	0·29	4·35
Agricultural Labour (%)	84·92	87·60	76·59	85·52	82·75	95·04	90·69	91·15	88·77
Other Agricultural Activities (M)	2·59	1·62	5·54	3·77	4·58	0·96	3·17	3·74	0·69
Total Agricultural Activities (%)	87·95	89·25	83·93	89·68	87·90	95·78	94·91	95·18	93·81
Industry (%)	—	—	—	—	—	—	—	—	—
Trade (%)	—	—	—	—	—	—	—	—	—
Service (%)	5·24	5·87	3·26	1·14	1·48	—	0·99	1·21	—
Profession	1·46	1·93	—	1·97	1·54	—	1·57	1·92	—
Non-Agricultural Labour(%)	3·64	2·73	6·47	6·97	8·20	2·75	2·38	1·51	6·19
Others (%)	1·71	0·22	6·34	0·24	—0·12	1·47	0·15	0·18	—
Total Non-Agricultural Activities (%)	12·05	10·75	16·07	10·32	12·10	4·22	5·09	4·82	6·19
Per Capita Income (Rs.)	285·47	248·30	533·35	294·40	263·22	495·65	323·19	291·61	612·59

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

Table 4.17—Household Expenditure—Per Household

Item	Cultivator Households								
	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Total Household Expenditure (Rs.)	3112	2047	4832	2874	2046	4299	2741	1535	3187
Of which (%)									
Cereals	28·56	40·52	20·55	31·64	41·69	23·40	33·41	50·10	30·44
Pulses	3·00	2·92	3·08	3·24	3·28	3·22	3·23	3·44	3·20
Milk and Milk Products	14·46	10·00	17·58	12·23	11·22	13·05	14·06	8·69	15·02
Other Food Items	15·46	16·59	14·76	16·02	16·97	15·24	14·72	16·36	14·43
Total Food Items :	61·48	70·03	55·97	63.13	73·16	54·91	65·42	78·59	63.09
Fuel and Lighting	4·16	4·40	4·02	4·44	4·84	4·11	4·17	4·80	4·06
Clothing and Bedding	10·48	8·46	11·92	11·31	6·31	15·42	9·26	3·51	1·028
Education	1·02	0·41	1·44	0·60	0·22	0·91	0·85	0·18	0·96
Travelling	2·60	1·09	3·65	2·99	1·06	4·56	1·98	0·54	2·24
Health	4·12	3·33	4·68	2·90	1·80	3·81	1·80	0·81	1·98
Others	16·14	12·28	18·32	14·63	12·61	16·28	16·52	11·57	17·39
Total Non-Food Items	38·52	29·97	44·03	36·87	26·84	45·09	34·58	21·41	36·91

Of Total Household Expenditure Cash Component (%) :	59·73	61·75	58·36	61·13	61·61	60·74	53·45	56·35	52·94
Expenditure on Food Items (Rs).	1913	1429	2691	1814	1497	2361	1793	1207	2010
Of which cash (%)	43·30	52·13	35·78	47·91	55·60	39·51	38·33	52·30	35·23
Expenditure on Non-Food Items (Rs.)	1199	618	2141	1060	549	1938	946	328	1177
Of which cash (%)	85·96	83·40	86·75	83·78	78·02	86·59	82·09	71·22	83·21
Per Capita Expenditure:									
On Food Items	346	260	480	314	254	425	312	206	353
On Non-Food Items	216	212	382	184	93	349	166	56	206
Total	562	372	862	498	347	774	478	262	559

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

Table 4.17—Household Expenditure—Per Household—(*contd.*)

Item	Agricultural Labour Households								
	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Total Household Expenditure (Rs.)	1208	1277	963	1175	1192	1106	1211	1263	962
Of which (%)									
Cereals	50·61	51·60	46·35	52·77	53·21	50·93	54·43	57·47	54·21
Pulses	2·82	2·60	3·84	4·17	3·40	7·39	3·63	3·56	4·11
Milk and Milk Products	2·78	2·77	2·82	2·33	2·52	1·52	2·34	2·10	3·82
Other Food Items	16·62	16·00	19·57	16·97	16·68	18·18	17·49	17·34	18·41
Total Food Items :	72·83	72·97	72·58	76·24	75·81	78·02	77·89	77·47	80·45
Fuel and Lighting	5·14	5·04	5·71	5·36	5·29	5·63	5·09	5·17	4·57
Clothing and Bedding	6·31	6·15	7·04	3·43	3·42	3·48	3·05	2·97	3·55
Education	0·07	0·09	—	0·01	0·01	—	—	—	—
Travelling	0·79	0·86	0·46	0·37	0·31	0·62	0·78	0·90	—
Health	2·95	2·93	3·03	2·83	3·21	1·23	2·53	2·88	0·37
Others	11·91	11·96	11·18	11·76	11·95	11·02	10·66	10·61	11·06
Total Non-Food Items :	27·17	27·03	27·42	23·76	24·19	21·98	22·11	22·53	19·55

Of Total Household Expenditure Cash Component (%) :	88·17	87·82	90·34	95·41	95·38	95·53	94·36	94·24	95·18
Expenditure on Food Items (Rs.)	879	932	699	896	904	863	943	979	774
Of which cash (%)	88·08	87·66	90·14	98·56	98·44	99·06	97·08	97·07	97·18
Expenditure on Non-Food Items (Rs.)	329	345	264	279	288	243	268	284	188
Of which cash (%)	88·45	88·29	90·87	85·30	85·80	83·02	84·80	84·50	86·98
Per Capita Expenditure :									
On Food Items	219	206	300	213	197	314	218	207	318
On Non-Food Items	81	77	115	66	63	88	62	60	78
Total	300	283	415	279	260	402	280	267	396

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

Table 4.18—Estimation of Savings—Per Household

Item	1969-70			1970-71			1971-72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Cultivator Households									
By Current Account Method :									
Gross Savings (Rs.)	—383	—930	1918	—207	—674	596	3604	418	4783
Savings-Income Ratio	—0·141	0·838	0·282	—0·078	—0·493	0·123	0·575	0·215	0·607
By Balance Sheet Method :									
Gross Savings (Rs)	—581	—218	1863	7	—535	941	2018	108	2725
Savings-Income Ratio	0·214	—0·156	0·278	0·003	—0·392	0.194	0·322	0·055	0·346
Agricultural Labour Households									
By Current Account Method :									
Gross Savings (Rs.)	—59	—156	281	63	13	257	187	115	525
Savings-Income Ratio	—0·057	—0·139	0·226	0·051	0·011	0·188	0·134	0·084	0·353

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

land in all the three years. And, thirdly, investment in non-agricultural assets for the households above the poverty-line constituted 43% in 1969-70 and 32% in 1970-71 and 1971-72, which includes mainly financial investments, gold and silver, and investment in construction and improvement of residential houses.

As regards the agricultural labour households, it is found that in 1969-70 and 1971-72 there was some investment by households above and below the poverty-line. The investment per household in these two years was about Rs. 25 —for the households below the poverty-line and Rs. 41 for the households above the poverty-line. [Table 4.19 (B)].

Table 4.19 (A)—Purchases, Investment and Sales of Assets by Groups Below and Above Poverty-Line—Per Household

(In rupees)

Item	1969–70			1970–71		1971–72			
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Cultivator Households									
Purchased Assets :									
Land	125 (19·37)	—	326 (20·53)	624 (40·69)	339 (45·26)	1115 (38·62)	525 (36·86)	—	719 (38·20)
Other Assets :									
Agriculture	196 (30·39)	116 (52·97)	326 (20·53)	288 (18·77)	173 (23·09)	485 (16·80)	310 (21·77)	139 (75·14)	374 (19·87)
Non-Agriculture	51 (7·91)	30 (13·70)	83 (5·22)	131 (6·54)	50 (6·68)	272 (9·42)	76 (5·34)	7 (3·78)	101 (5·37)
Total	372 (57·67)	146 (66·67)	735 (46·28)	1043 (68·00)	562 (75·03)	1872 (64·84)	911 (63·97)	146 (78·92)	1194 (63·44)
Investment other than Purchases in Assets :									
Agriculture	136 (21·09)	29 (13·24)	308 (19·40)	208 (13·55)	40 (5·34)	497 (17·22)	204 (14·33)	35 (18·92)	267 (14·20)
Non-Agriculture	137 (21·24)	44 (20·09)	545 (34·92)	283 (18·45)	147 (19·63)	518 (17·94)	309 (21·70)	4 (2·16)	421 (22·36)
Total	273 (42·33)	73 (33·33)	853 (53·72)	491 (32·00)	187 (24·97)	1015 (35·16)	513 (36·03)	39 (21·08)	688 (36·56)
Total :	645 (100·00)	219 (100·00)	1588 (100·00)	1534 (100·00)	749 (100·00)	2887 (100·00)	1424 (100·00)	185 (100·00)	1882 (100·00)

Sales :									
Land	20 (14·60)	33 (25·58)	—	479 (57·78)	645 (66·49)	194 (33·05)	58 (22·05)	—	79 (27·62)
Other Agricultural Assets	114 (83·21)	94 (72·87)	145 (7·32)	285 (34·38)	251 (25·88)	343 (58·43)	200 (76·05)	200 (100·00)	200 (69·93)
Non-agricultural Assets	3 (2·19)	2 (1·55)	4 (2·68)	65 (7·84)	74 (7·63)	50 (8·52)	5 (1·90)	—	7 (2·45)
Total :	137 (100·00)	129 (100·00)	149 (100·00)	829 (100·00)	970 (100·00)	587 (100·00)	263 (100·00)	200 (100·00)	286 (100·00)
Net :									
Land	105 (20·67)	—33 (—36·67)	326 (22·65)	145 (20·57)	—306 (138·46)	921 (40·04)	467 (40·22)	—	640 (40·10)
Other Agricultural Assets	218 (42·91)	51 (56·67)	489 (33·98)	211 (29 93)	—38 (17·19)	639 (27·79)	314 (27·05)	—26 (173·33)	441 (27·63)
Non-Agricultural Assets	185 (36·42)	72 (80·00)	424 (40·37)	349 (49·50)	123 (55·65)	246 (32·17)	380 (32·73)	11 (73·33)	515 (32·27)
Total :	508 (100·00)	90 (100·00)	139 (100·00)	705 (100·00)	—221 (100·00)	2300 (100·00)	1161 (100·00)	—15 (100·00)	1596 (100·00)

N.B. : Figures in brackets indicate percentages to total.

Table 4.19 (B)—Purchase, Inevstment and Sales of Assets by Agricultural Labour Households—Per Household

(In rupees)

Item	1969–70			1970–71			1971–72		
	Total	BPL	APL	Total	BPL	APL	Total	BPL	APL
1	2	3	4	5	6	7	8	9	10
Purchases (Rs.)	25·10	9·81	77·77	4·72	4·13	7·00	32·08	29.46	44.43
Investment—Other than Purchases (Rs.)	20·26	13·23	44·44	11·72	12·90	7·12	15·63	18·94	—
Sales	12·50	—	55·55	21·69	22·77	17.50	19.26	17·27	28·57
Net (Total)	32·86	23·04	66·66	—5·25	—5·74	—3·38	28·45	31·13	15·86

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

4.21. Summary of Findings, and Conclusions or Hypotheses[3]

We may now summarise the dominant and important socio-economic characteristics of the sample households belonging to the two categories, *viz.*, cultivator households and non-cultivating agricultural labour households. In the light of the findings it is also possible to formulate some conclusions or hypotheses regarding the influence of the various factors on the dimensions of poverty in the taluk.

(A) Demographic features

The sample survey lends clear support to the generally observed feature of the rural population in India, *viz.*, the larger average size of the cultivator households as compared with the non-cultivating agricultural labour households. The average size of the cultivator households is found to be approximately 5·5 as compared with 4·0 for the agricultural labour households. No significant difference is found regarding the size of the household between the cultivator households above and the below the poverty-line. A second significant feature is that the proportion of children in the households of both cultivator and agricultural labour households below the poverty line is considerably high. These facts may suggest two hypotheses or conclusions :

(i) The Hindu Joint Family continues to be a dominant and persisting feature of the cultivating classes in contrast with the non-cultivating agricultural labour classes.

(ii) The relatively low child-adult ratio in the affluent sections of the rural society may be due to the influence of higher standards of living or due to acceptance of family limitation practices.

There is no evidence of concentration of poverty in the higher age-groups but there is some evidence of negative correlation between the level of education of the head of the household and household poverty. This means that either the members of the poor households do not have adequate opportunities or cannot afford to spend on school education, or the lack of school education may explain the poverty of the households It is not uncommon that a household with one or two members with high-schoo or college education is usually found above the poverty-line be-

cause a high-school or college qualification gives scope for securing a salaried job.

(B) Caste and Occupation

The survey clearly brings out the higher incidence of poverty in the cultivator households belonging to the middle and lower levels in the traditional caste hierarchy. At the same time, the percentage of households below the poverty-line in the higher level caste groups is not insignificant. This means that the relationship between caste hierarchy and poverty is not a simple and straight-forward relationship to establish. Households belonging to the middle level and lower level castes are found below the poverty-line to a greater extent because of certain handicaps faced by them in regard to the ownership of land and other assets, and access to credit and other means of production. The relationship between caste hierarchy and poverty cannot be seen in the case of agricultural labour households because most of them belong to the middle or lower level castes, and are more or less wholly dependent on labour for livelihood.

The analysis of occupational diversification brings out that the non-cultivating agricultural labour households have only labour as the major source of livelihood in contrast with the cultivator households for whom land is the major source. Agricultural labour is also an important source of livelihood for the cultivator households below the poverty-line. The absence of diversification for the agricultural labour households has to be attributed to lack of ownership of land or other assets, and lack of education and training in skills.

(C) Work Participation and Employment

The sample survey brings out clearly the following facts regarding the economic status, work participation and employment of the households belonging to the two categories :

(i) The percentage of non-workers is relatively small in the case of agricultural labour households as compared with the cultivator households.

(ii) The percentage of earning dependants in the agricultural labour households is found to be substantially higher than among the cultivator households.

(iii) As regards the participation rates, there is not much difference in regard to males between the cultivator households and the agricultural labour households. However there are large and significant differences in regard to females and children. The participation rate of females in the agricultural labour househods is nearly three times and that of children is nearly two times the corresponding rates among the cultivator households. Among the cultivator households, those below the poverty line show a higher rate of participation for females and children as compared with the households above the poverty-line.

(iv) In regard to utilisation of the labour time available to the households, under-employment in the agricultural labour households is considerably less than among the cultivator households. Among the cultivator households, those below the poverty-line have less underemployment than those above the poverty-line.

These findings lead to two important conclusions. The participation rates of males, females and children are generally very high among the non-cultivating agricultural labour households. Secondly, the participation rates of females and children are relatively low for the cultivator households, and particularly for those above the poverty-line. The cultivator status combined with caste status explains these features of work participation.

(D) Land Holdings and Land Tenure

The small average size of the operational holding in the taluk, particularly in the case of holdings below the poverty-line, is a matter of considerable significance. The incidence of tenancy in the area is quite high as revealed by the proportion of holdings having leased-in lands either partly or wholly. The proportion of leased-in area in the total operated area of the cultivator households constitutes nearly 60% in the case of holdings below the poverty-line, whereas the leased-in area of households above the poverty-line is nearly balanced by the area leased-out by them

Also, rents paid on leased-in lands constitute a heavy burden on the tenants. The rent component of Cost A_2 is as high as 35 to 46%. These facts together with the fact of high proportion of non-cultivating agricultural labourers in the population, suggest that the demand for land is far in excess of supply, and one of the important means of mitigating poverty in the taluk has to be egalitarian reform of land tenure.

(E) Farm and Non-farm Assets

The structure of farm and non-farm assets shows the advantageous position in which the households above the poverty-line are placed in respect of ownership of land, mechanisation of irrigation and processing equipment.

(F) Input and Output in Agriculture

The farm economy of the selected holdings shows the high productivity of agriculture. The cultivator households below the poverty-line are not except marginally, less progressive than the others. There is however significant imbalance between the shares of land owners and agricultural labourers in the total income from agriculture. The analysis of farm productivity and incomes suggests that the high proportion of cultivator households below the poverty-line has to be explained in terms of the distribution of land and other resources rather than in the method of production or technology employed.

The survey also brings out the importance of variability in the input-output ratio and farm business income during the three-years of study. It suggests that one important means of alleviating poverty is to reduce instability in agriculture.

(G) Incomes, Savings and Investments

The analysis of incomes, savings and investments lead to the following important conclusions :

(i) Most of the rural households have several sources of income besides agriculture, and generally speaking, the cultivator households have more sources of income than the non-cultivating

agricultural labour households who are almost wholly dependent on labour for livelihood.

(ii) Even among the cultivator households, the poorer sections depend considerably on agricultural labour besides cultivation for livelihood.

(iii) When the total income from all the sources is taken into consideration, it is hardly possible to distinguish between the position of the non-cultivating agricultural labour households, and the poorer section of the cultivator households. However, there is more instability in the incomes of the latter.

(iv) Household saving arises almost wholly from the cultivator households above the poverty-line, the contribution of the other groups being small or negative.

(v) As regards investments made by the cultivator households, here again it is found that the cultivator households above the poverty-line only make substantial investments.

(vi) For the cultivator households above the poverty-line, investment in agricultural assets constitutes nearly 70% of the total investment, but more than 62% of this goes into purchase of land and investment in farm stocks. For the households below the poverty-line, the disinvestment in land and stocks is more than the investment in other agricultural assets and non-agricultural assets.

These facts relating to incomes, savings and investments of the different categories of households suggest that rural household saving and pattern of investments depend essentially on the behaviour of the cultivator households above the poverty-line.

CHAPTER V

SAVING, INVESTMENT, ECONOMIC SURPLUS AND EMPLOYMENT

5.01. Introduction

Our principal objective in this Chapter is to look into some of the important macro-aspects of the rural economy of the taluk —Savings, investments, economic surplus and employment — with a view to throw light on the following :

1. The extent of household savings and unproductive use of savings.
2. The total economic surplus of the taluk and its disposal.
3. The extent of export of capital from the rural area of the taluk to outside.
4. The gap between the labour time of the workforce available, its absorption in agriculture and other activities and under-employment.
5. Out-migration of population to towns within the taluk and to outside.
6. Possible causes of imbalance between supply and demand for labour.

In the analysis of variables which determine the levels of income and employment in the rural area of the taluk, attention is also paid to the distinction between the households below and above the poverty-line. The estimates are based mainly on data available in 1961 and 1971 Census documents and the I.S.I. sample survey data. The method of estimating the total number of households in the taluk below and above the poverty-line has already

been explained in the earlier chapter. The total number of rural households in the taluk as given in the 1971 Census is distributed according to this method. Estimates of total savings, investments and employment for the different categories of households have been made on the basis of the detailed data available in the I.S.I. Study. The household averages of incomes, savings and investments and employment for the three-year period 1969-70 to 1971-72 have been taken for the purpose of calculating the totals for the cultivator and agricultural labour households for the year 1971-72. As regards estimates for the remaining households the assumption made in studying the dimensions of poverty in the taluk in Chapter III is also made here. The estimation methods are undoubtedly subject to considerable limitations. Nevertheless, it will be found that significant and valuable results emerge from the analysis.

5.02. No. of Households in the different categories

According to the 1971 Census, the total number of households in the rural area of the taluk was 78,788 and this is distributed as follows :

	No.	%
1. No. of cultivator households	35,455	45·0
2. No. of non-cultivating agricultural labour households	35,455	45·0
3. No. of other households	7,878	10·00
Total	78,788	100·0

The distribution of the households belonging to the above three categories between those below the poverty-line and those above the poverty-line is estimated on the basis of the average proportions obtained for the 3 years of sample survey period and is shown in the next page :

Table 5.01—Distribution of Households in the Taluk Below and Above the Poverty-Line.

Category of households	Cultivator households	Agricultural labour households	Other households	Total households
1	2	3	4	5
Below Poverty-Line	18082 (51)	28364 (80)	5121 (65)	51567 (65)
Above Poverty-Line	17373 (49)	7091 (20)	2757 (35)	27221 (35)
1	35455 (100)	35455 (100)	7878 (100)	78788 (100)

Note : Figures in brackets indicate percentages to total households in each column.

The Table 5.02 gives the total income of households in each category and according to the major sources of income. The cultivator households above the poverty-line have a number of sources of income besides cultivation. Whereas for the households below the poverty-line the major sources are agricultural labour, 'other sources' and cultivation, in order of importance. Out of the total income of the cultivator households in the taluk amounting to Rs. 13·8 crores, Rs. 11·32 crores (or 82·0%) was received by households above the poverty-line and only Rs. 2·47 crores (or 18·0%) by the households below the poverty-line. As regards the non-cultivating agricultural labour households, the total income received by them was Rs. 4·47 crores out of which the income received by the households below the poverty-line was Rs. 3.51 crores (or 79%). In the caes of other households, the total income came to Rs. 203 crores out of which households below the poverty-line received only Rs. 66 lakhs (or 33·0%). The total income of all the households in the taluk thus came to Rs. 20·29 crores distributed as follows :

Category	Total (Disposable income (Rs. in crores)	Percentage to total income
Households below the Poverty-line :		
a. Cultivator households	2·47	12·17
b. Agricultural labour households	3·51	17·31
c. Others	0·66	3·25
	6·64	32·73
Households above the Poverty-line :		
a. Cultivator households	11·32	55·79
b. Agricultural labour households	0·96	4·73
c. Others	1·37	6·75
	13·65	67·27
Total	20·29	100·00

Table 5.02—Estimated Total Income of the Households in the Taluk

Item	For the Sample Households			For the Taluk		
	Below Poverty Line (Per household)	Above Poverty Line (Per household)	Total (Per household)	Below Poverty Line	Above Poverty Line	Total
1	2	3	4	5	6	7
			Cultivator Households			
Income :	(Based on 3 years average)	(In Rupees)		(Total Income)	(Rupees in lakhs)	
From Cultivation	310	4202	2217	56·05	729·98	786·03
From Dairying	188	574	377	33·99	99·67	133·66
From Agricultural Labour	465	283	376	84·08	49·23	133·31
From Other Sources	403	1456	919	72·87	252·96	325·83
Total Income	1366	6515	3889	246·99	1131·84	1378·83

Agricultural Labour Households

Income :	(Based on 3 years average) (In Rupees)			(Total Income)		(Rupees in lakhs)
From Dairying	4	24	8	1·13	1·70	2·83
From Agricultural Labour	1083	1173	1101	307·18	83·18	390·36
From Other Sources	152	157	153	43·12	11·13	54·25
Total Income	1239	1354	1262	351·43	96·01	447·44

(Other Households)

	(Based on the assumptions made in Chapter 3) (In Rupees)			(Total Income)		(Rupees in lakhs)
Income :	1288	4968	2576	65·96	136·96	202·92

All Households

				(Total Income)	(Rupees in lakhs)	
Total for all Households	—	—	—	664·38	1364·81	2029·19

Table 5.03—Estimated Savings of the Households in the Taluk

	For the Sample Households			For the Taluk		
	Below Poverty Line (Per household)	Above Poverty Line (Per household)	Total (Per household)	Below Poverty Line	Above Poverty Line	Total
1	2	3	4	5	6	7
	Cultivator Douseholds					
	(Based on 3 years average) (In Rupeex)			(Total Savings) (Rupees in lakhs)		
Savings according to Balance Sheet Method	—290	2087	875	—52·44	362·77	310·13
	Agricultural Labour Households					
	(Based on 3 years average) (In Rupees)			(Total Savings) (Rupees in lakhs)		
Savings according to Current Account Method	—7	348	64	—1·98	24·68	22·70
	Other Households					
	(Based on the assumption made in Chapter 3) (In Rupees)			(Total Savings) (Rupees in lakhs)		
Savings	—117	1560	470	—5.99	43·02	37·03
	All Households					
				(Total Savings) (Rupees in lakhs)		
	—	—	—	—60·41	430.27	369·86

Table 5.03 (A)—Break Up of Savings (Estimate of the Cultivator Households)

Item	For the Sample Households			Total for the Cultivator Households in the Taluk		
	BPL Per household (Rs.)	APL Per household (Rs.)	Total Per household Rs(.)	BPL (Rs. in lakhs)	APL (Rs. in lakhs)	Total (Rs. in lakhs)
1	2	3	4	5	6	7
1. Change in Physical Assets	—198	1421	603	—35.80	246.87	213.79
2. Change in Financial Assets	— 28	130	39	—5.07	22.58	13.83
3. Increase in borrowings over lendings	56	—93	—18	10.13	—16.16	—6.38
4. Increase in capital receipts over payments	63	—352	—142	11.39	—61.15	—50.35
5. Capital damages	55	91	73	9.95	15.81	25.78
6. Gross Savings (1 + 2 - 3 - 4 + 5)	—290	2087	875	—52.44	362.57	310.13

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

5.04. Savings :

The estimated savings of the three categories of households came to Rs. 3.70 crores as shown in Table 5.03 and it is distributed as follows :

	Household Savings (Rs. Crores)			
	Cultivator households	Agricultural labour house holds	Other households	Total
Below the Poverty-line	(—)0.52	(—)0.02	(—)0.06	(—)0.60
Above the Poverty-line	3.62	0.25	0.43	4.30
	3.10	0.23	0.37	3.70

The estimates clearly show that rural household saving came entirely from the cultivator households above the poverty-line and there was considerable dissaving by the households below the poverty-line.[2]

5.05. Economic Surplus[3]

In the study of household saving in the taluk it may be noted that the concept of income from cultivation used is the conept of Farm Business Income (based on Cost A_2). The Farm Business Income is arrived at after deducting the various costs including rents paid on leased-in lands and land taxes. The amount of rents paid on leased-in lands (net) came to Rs. 160·5 lakhs. The amount oi rents received came to Rs. 62·5 lakhs for the house-tolds above the poverty-line and Rs. 3·0 lakhs for those below the poverty-line, the total being Rs. 65·5 lakhs. The amount of rents paid was Rs. 107 lakhs for the households above the poverty-line and Rs. 119 lakhs for those below the poverty-line, the total being Rs. 226·0 lakhs. Thus, an amount of net rent equal to Rs. 160.5 lakhs has to be included in the total income of the taluk and to estimate the economic surplus of the region. Similarly, the amount of Rs. 37.2 lakhs paid by the cultivator households as land taxes has to be included in the total income of the taluk and to arrive at the economic surplus of the taluk.

Further, the income received by households by definition is income net of remittances. The amount of remittances received by the cultivator households was Rs. 4·61 lakhs and the amount of remittances made was Rs. 41·5 lakhs, the net amount being Rs. 36·9 lakhs. This amount also has to be included in the total income of the taluk and to arrive at the economic surplus of the taluk. The total economic surplus of the taluk thus comes to Rs. 6.05 crores as shown below :

Table 5.04—Economic Surplus of the Taluk.

Sl. No.	Item	Amount (Rs. In crores)	% to Total income
1	2	3	4
1.	Household Savings	3·70	16·34
2.	Land Rent (net)	1·61	7·12
3.	Land Taxes	0·37	1·63
4.	Remittances (net)	0·37	1·63
	Economic surplus : (1 to 4)	6·05	26·72
5.	Total Income of the Taluk	22·64	100·00

5.06. Investments

The estimates of total investment by the cultivator households and other households above and below the poverty-line and the nature of investments are shown in Table 5.05. The total amount invested by the cultivator households came to Rs. 3·24 crores, out of which 64% is accounted for by agricultural assets, 24% by non-agricultural assets and 12% by financial assets. A significant feature of the investment pattern is that 26% of the investment was in net purchase of land (Rs. 82·6 lakhs). The amount of investment in purchase of land by the cultivator households above the poverty-line was Rs. 107·9 lakhs, while the households below the poverty-line disinvested in land to the extent of Rs.. 25·3 lakhs

Table 5·05—Estimated Investment in the Taluk

Item	For the Sample Households			For the Taluk		
	Below Poverty Line (Per household)	Above Poverty Line (Per household)	Total (Per household)	Below Poverty Line	Above Poverty Line	Total
1	2	3	4	5	6	7
			Cultivator	**Households**		
	Net Investment (Based on 3 years average) (In Rupees)			Total Investment (Rupees in lakhs)		
Net Investment on :						
I. Agricultural Assets	—202	1386	576	—36·53	240·75	204·22
Of which :						
(a) Purchase of Land	—140	621	233	—25·31	107·92	82·61
(b) Investment on Land	6	138	70	1·08	23·73	24·81
(c) Investment on Farm Stocks	—63	243	87	—11·39	42·24	30·85
(d) Others	—5	385	186	—0·91	66·86	65·95
II. Non-Agricultural Assets :	67	385	223	12·11	66·95	79·06
Of which :						
(a) Investment on Residential Houses	66	323	192	11·93	56·14	68·07
(b) Others	1	62	31	0·18	10·81	10·99

III. Financial Assets*	15	217	114	2·71	37·71	40·42
IV. Total Investment	—120	1988	913	—21·70	345·40	323·70
Agricultural Labour Households						
	Net Investment (Based on 3 years average) (In Rupees)			Total Investment (Rupees in lakhs)		
Total Investment	16	71	27	4·54	5·03	9·57
Other Households						
	Net Investment (Based on the assumptions made in Chapter 3) (In Rupees)			(Total Investment) (Rupees in Lakhs)		
Net Investment	—37	1412	470	—1·89	38·92	37·03
Total Households						
				Total Investment (Rupees in Lakhs)		
Total Investment	—	—	—	—19·05	389·36	370·01

(*)This does not include investment in money lending business.

Investment in residential houses (construction or improvement) by the cultivator households above the poverty-line came to Rs.56 lakhs as compared with Rs.12 lakhs by the households below the poverty-line. Investment in financial assets by the households above the poverty-line came to Rs. 37·7 lakhs as compared to Rs. 2·7 lakhs for households below the poverty-line. Investment in stocks (mainly farm produce) was estimated as Rs. 3·8 lakhs, the investment made by households above the poverty-line coming to Rs. 42·2 lakhs and the households below the poverty-line disinvesting to the extent of Rs. 11·4 lakhs. The total investment of the agricultural labour households came to Rs. 9·6 lakhs only and that of the 'other households' is estimated as Rs. 37·0 lakhs. The total amount of investment made by all the households in the taluk came to Rs. 3·70 crores which was far less than the estimated economic surplus of the taluk. This implies that there was considerable export of capital from the taluk.

5.07. Nature of Investments

In analysing the investments made by the households we must also take note of the fact that investments of an unproductive kind and investment in non-commercial assets amounted to a considerable sum.

Investment in purchase of land has to be considered entirely as unproductive from the social point of view and it came to Rs.82·6 lakhs. Investment in durable consumer goods may be treated as non-commercial investment, and it came to Rs. 6·5 lakhs for cultivator households and about Rs. 1.6 lakhs for the agricultural labour and 'other households.' The total amount of unproductive and non-commercial investment thus came to Rs. 90·7 lakhs. The amount invested in farm stocks was Rs. 30·8 lakhs. The amount of productive investment in agriculture and construction of residential houses, etc., amounted to Rs. 1·56 crores. Thus, out of the total economic surplus of Rs. 6·60 crores produced by the taluk, only Rs. 1·56 crores or 25·6% was reinvested for adding to fixed capital and productive capacity of the taluk.

5.08. Export of Capital from the Taluk

Based on the above estimates of economic surplus and investments, it is possible to calculate the export of economic surplus or of capital from the rural area of the taluk to outside. It needs no emphasis that the estimates have to be accepted with a certain amount of caution. The following Table 5.06 gives the export of capital from rural aera of the taluk.

Table 5.06[4]—Export of Capital

Item 1	Amount* (Rs. in crores) 2
Rents paid (net)	1·61
Land taxes paid	0·37
Remittances (net)	0·37
Investment in residential houses (assuming 80% of the total is made outside)	0·54
Investment in financial assets	0·40*
Investment by agricultural labour households and other households (assumed to be 10% of the total)	0·05
Total	3·34

* Includes investment in gold, silver, bonds and shares contribution to LIC, Chit Funds and LIC, but not investment in money lending business.

5.09. Gap Between Labour Time Available and Labour Time Absorption

The following method is adopted in estimating the total work force and the available labour time in 1971. The 1961 Census provides data about the total rural population of males and females with a further break-down into broad age-groups. Children are defined as those who are aged 14 years or below. The 1961 Census also gives us the number of workers in different occupations among males and females, and among adults and children (according to age-groups). From these data the participation rates in agriculture for males and females are separately estimated and the proportions of adults and children among the male and female workers are calculated. The work participation rates of 1961 thus arrived at for the male and female population have been applied to the male and female rural population of 1971. This gives an

Table 5.07—Estimate & Number of Workers in Adult Male Units and Employment in the Taluk

Item	For the sample (Cultivator and Agricultural Labour Households) (Based on the 3 years study)	For the Taluk (All the Households)
1	2	3
Below the Poverty Line		
1. Total number of workers in adult male units	471·90	88366
2. Total time available for employment (On the basis of 300 days norm) (In Mandays)	141750	26509800
3. Number of days employed	87299	16346826
4. Number of days unemployed	54271	10162974
Above the Poverty Line		
1. Total number of workers in adult male units	313.90	58910
2. Total time available for employment (On the basis of 300 days norm) (In Mandays)	94170	17673000
3. Number of days employed	52275	9812337
4. Number of days unemployed	41895	7860663
For All the Households		
1. Total number of workers in adult male units	785.80	147276
2. Total time available for employment (On the basis of 300 days norm) (In Mandays)	235740	44182800
3. Number of days employed	139574	26159163
4. Number of days unemployed	96166	18023637

estimate of male and female workers in the year 1971. The child workers among male and female workers are then estimated separately using the 1961 ratios of adults to children among male and female workers. The male and female child workers are then pooled together to give estimates of the three categories of workers, *viz.*, adult males, adult females and children. The work force in these categories is next expressed in terms of adult male units (efficiency units) in the ratio of 1 adult male : 0·67 adult females : 0·50 children. In order to estimate the available labour time, a norm of employment of 300 days per year per adult male unit is taken making allowance for days of sickness and for ceremonies and other social and personal factors.

The estimated total number of workers in adult male units came to 150262 and the total available labour time came to 45·1 million man-days. Total employment in the agricultural and non-agricultural sectors came to 28·3 million man-days. (*See* Table 5·07 page 116). The gap between the available labour time and employment is thus estimated as 16·8 million man-days. Further a comparative study of the households below and above the poverty-line shows that the gap came to 10·60 million man-days for the former households and 6·2 million man-days for the latter households.

5.10. Out-Migration

There is considerable evidence of out-migration of population from the rural area of the taluk to the urban areas within the taluk and to outside areas. As referred to in the Second Chapter, while analysing the demographic data of the taluk for 1961 and 1971 Census years, the rural population of the taluk increased at a compound annual growth rate of 1·43% as compared with 2·06% growth rate of the urban population. The decennial growth rates of population in the district, both in respect of the rural and urban populations, are higher than the growth-rates in the taluk, and the growth rates in the whole State of Andhra Pradesh are still higher. The following table presents the growth-rates of population for the taluk, district and the State (Table 5·08).

Table 5.08—Growth Rates of Population.

Item	Total Population in 1961	Total Population in 1971	Annual compound rate of growth
Ramachandrapuram Taluk :			
Rural	310458	357707	1·43
Urban	67679	82957	2·06
Total	378137	440664	1·54
East Godavari District :			
Rural	2124898	2493668	1·61
Urban	483477	593594	2·07
Total	2608375	3087262	1·70
Andhra Pradesh :			
Rural	29708939	35100181	1·68
Urban	6274508	8402527	2·96
Total	35983447	43502708	1·92

In analysing the macro-economic aspects of the taluk, one must, therefore, bear in mind that considerable net out-migration of population from the rural areas of the taluk to the urban areas of the taluk and to outside areas had taken place during the decade and despite this, there was large underemployment of the labour force in the rural area of the taluk. This has to be attributed to the fact that the growth of labour force in the taluk, net of migration, was not matched adequately by productive reinvestment of the economic surplus of the taluk within the taluk. Or, one might say that the high rate of growth of export of capital was not matched or balanced by an equally high rate of migration.

5.11. Possible causes of drain of economic surplus

In this connection it is legitimate to raise a question as to the pull or push factors that are leading to the drain of economic surplus from the rural area of the taluk to outside. It is not possible to make a depth study of the problem as it is a multi-dimensional problem and as it requires a detailed historical study

of the socio-economic development of the taluk. However, one might venture to say that the principal factors contributing to the export of capital from the rural area of the taluk may be stated as follows :

1. As the taluk has already made substantial advances in irrigated agriculture and agro-industries, there is limited scope for investment in fixed capital in the agricultural sector despite the availability of new technology based on HYVs and intensive application of fertilizer, and in the agricultural processing sectors.

2. Money lending and financial investments, and investment in residential and non-residential constructions in urban areas are highly remunerative.

3. There is relatively little public investment in villages for expanding and improving the quality of essential services such as health, education, transport, power and fuel for domestic consumption, etc. This discourages choice of villages for permanent residence and investment by elite groups in society.

CHAPTER VI

CAUSES OF POVERTY AND ANTI-POVERTY STRATEGY

6.01. Causes of Poverty

In the earlier chapters an attempt was made to measure the magnitude and intensity of poverty and describe the poverty profile of the taluk with particular reference to the cultivator and agricultural labour households. An attempt was also made to examine some macro aspects of the economy of the taluk and estimate aggregate saving, investment, export of economic surplus and absorption of labour force in agriculture and other activities. In this chapter we focus our attention on the causes of poverty in the taluk and the elements of a relevant anti-poverty strategy. We shall first analyse the evidence gathered in the light of a suitable framework for understanding rural poverty in the region as it will also help in the interpretation of the tentative conclusions we have reached in the previous chapters. The elements of anti-poverty strategy will be discussed in the next section.

The phenomenon of poverty we propose to analyse is poverty in a regional setting and in the context of technological advance in agriculture and agricultural prosperity. We have selected the rural area of the Ramachandrapuram taluk in the East Godavari district for the purpose, and the area as already mentioned, is fairly typical of other regions in Coastal Andhra Pradesh and elsewhere. In following a framework for analysis we shall be therefore concerned with variables relevant to the socio-economic conditions of such regions only.

If poverty is viewed as it is usually done by the economist, as a gap between a minimum level of income and the actual income received by a family, it must arise from an inter-action between several variables related to the inflow of income to the family on

the one side and the number and needs of the consuming units in the family on the other. Poverty thus results from inadequacy of income in relation to consumption needs of the family.

Specifically, a few important factors influencing poverty can be identified and the available evidence can be considered to determine in what way poverty is influenced by these factors. These are the following :

(a) Family size and composition, (b) Employment and under-employment, (c) Discrimination in the labour market, (d) Low wage rates, (e) Caste hierarchy, (f) Distribution of land rights and access to modern inputs and credit, and (g) Drain of economic surplus-supply and demand for labour. It is necessary to repeat here that in analysing the poverty phenomenon in the area, we are dealing with social groups or classes with a fair degree of homogeneity in respect of occupational characteristics, such as the target groups of small farmers, marginal farmers and landless labourers.

(a) Family Size and Composition

The relationship of family size and composition to poverty is an important relationship because the labour market does not discriminate between families as sources of labour supply, that is to say, whether the supply of labour comes from large or small families, or from families with high or low worker non-worker ratio. From this point of view, large families with a high proportion of children and low proportion of workers, and which are dependent mainly on cultivation of small farms or on wages, are likely to fall below the poverty-line. Small families with a low proportion of children and a high proportion of workers have a greater chance of finding themselves above the poverty-line. The absolute size of family without reference to the proportion of workers and children is very unlikely to have any relation to poverty. We may not also find any connection between the proportion of workers in the family and poverty in the Indian situation because of the definition of worker adopted in the population studies. It does not help in precise measurement of the worker status of cultivator or agricultural labourer, as reflected in the nature, duration of work, and earnings from work. It is

therefore, not possible to give an unambiguous meaning to the worker —non-worker ratio. The proportion of children in the family may have to be considered as the more relevant variable for assessing the influence of family structure on poverty[1].

As shown in the following Table (6.01) the average size of a cultivator household above the poverty-line was 5·64 persons as compared with 5·73 persons for the household below the poverty-line. The difference does not appear to be much. The worker—non-worker ratio is clearly far less for the cultivator households above the poverty-line (34·38 per cent) as compared with the ratio for the households below the poverty-line (40·61 %). This implies that the work participation rate of the poverty households is higher and hence, poverty cannot be attributed to lower participation levels. As regards the proprotion oi children in the iamily, the proportion was far higher for the cultivator households below the poverty-line (44·5 %) as compared with the proportion for the households above the poverty-line (32·5 %). This indicates obviously the positive relationship between higher dependency ratio and poverty.

Table 6.01—Family Size, Participation Rates and Percentage of Children in the Households.

(Average of the 3 years 1969-70 to 1971-72)

Item	Cultivator Households			Agricultural labour households		
	BPL	APL	Total	BPL	APL	Total
1	2	3	4	5	6	7
1. Family size	5·73	5·64	5·68	4·61	2·50	4·18
2. Participation rates (%)						
Males	93·31	84·34	88·46	95·24	100·00	96·10
Females	34·35	16·49	24·56	70·54	92·31	74·19
Children	6·17	0·74	3·71	5·46	33·33	6·35
Total	40·61	34·38	37·42	50·46	90·00	55·22
3. Percentage of children in the household	44·5	32·5	38·6	41·8	13·3	37·9

N.B.—BPL : Below Poverty Line ; APL : Above Poverty Line.

The data relating to the non-cultivating agricultural labour households lend support to the conclusions drawn above. The average size of the family for both the categories of households below and above the poverty-line was 4·18 persons which is far less than the average size among both the categories of cultivator households. The participation rate of these households was again far higher (55·23 per cent) than the corresponding rates for the two categories of the cultivator households (40·61% and 34·38%). The proportion of children in these households was considerably higher (37·9%) than in the case of cultivator households above the poverty-line (32·5%), though it is less than in the case of cultivator households below the poverty-line (44·5%). The evidence regarding family size and composition of the two categories of the households above and below the poverty line, thus shows the dependency ratio as the only important demographic factor which may be considered as an independent factor explaining poverty.

(b) Employment and Underemployment

The relationship between employment and poverty is of considerable significance. The low earning power of poor families may be attributed either to lack of employment opportunities on the family farm and in the labour market (seasonal or chronic underemployment) or to the inability of workers to move to places outside the village with better opportunities for employment, and to more productive and better paid occupations. More employment for the under-employed workers in the householsd below the poverty-line would undoubtedly reduce the poverty of such households, and may push some of them above the poverty line. But, the latter result depends on the extent of unutilised labour time available to the households from a practical point of view and the prevailing market wage rates. Full employment for the workers in these households, though very desirable and necessary, is not a guarantee for them to cross the poverty-line. In this context we must also take note of the fact that there is usually considerable supply of labour seeking employment from the households above the poverty-line. Significant under-employment is a feature of both the poor and non-poor households in the rural areas.

The lack of mobility to places outside the village with better employment opportunities and to better paid occupations arises from a variety of factors-physical, social or psychological—such as chronic illness and disability, caste and class considerations, work attitudes, attachment to family and village, etc. The inability of the workers to move to more produtive and better paid occupations arises from the fact that such opportunities are not available in the village and the demand outside the village is usually for skilled or semi-skilled labour. The facts known about migration of rural workers from the poor households to urban areas in search of employment show that migration occurs on a considerable scale. But, there is hardly any occupational mobility within the village, and that lack of training in skills and education constitutes a major factor restricting mobility to better paid occupations in urban areas.

Table 6.02—Employment Per Worker and Per Household.

(Based on 3 years average, 1969-70 to 1971–72)

Item	Cultivator Households			Agricultural Labour Households		
	BPL	APL	Total	BPL	APL	Total
1	2	3	4	5	6	7
Employment in mandays:						
1. Per Worker (Adult Male Unit)	172	157	164	210	225	213
2. Per Household	322	287	304	411	423	413

N.B. : BPL : Below Poverty Line ; APL : Above Poverty Line.

As shown in Table 6.02, the number of man days employed, per worker, came to 172 for the cultivator households below the poverty-line as compared with 157 for those above the poverty-line, the average for both categories of households being 164. For the agricultural labour households the total number came to 213 on the average, which is considerably more than the corresponding figures for both the categories of cultivator households. This lends support to the paradoxical conclusion that the proportion of labour time utilised increased with poverty with the impli-

cation that the equation between employment and poverty does not hold good, because more members of the poor families work and they work for more days in the year, and still remain poor[2]. It is, however, important to note that full employment would substantially raise the income levels of these households and carry some of them above the poverty-line, although a hard core of them will remain poor.

(c) Discrimination in the Labour Market

The prevalence of discrimination on grounds of age and sex is a glaring feature of the labour market, and it is based more on convention and custom than on differentials in productivity. The customary differentials in wage rates paid to adult males, adult females and children constitute an important cause of poverty because of differences in work participation rates. Families with a high ratio of female and child workers and which are wholly dependent on wage labour for livelihood are likely to be pushed below the poverty line in comparison with families with higher porportion of adult male workers.

We have already seen that the work participation rates of females and children were considerably higher in the non-cultivating agricultural labour households than in the cultivator households below the poverty-line, which in their turn were lower than in the cultivator households above the poverty-line. And, as shown in the following table, the average daily wages earned by the female agricultural labourers was Rs. 2·32 per day as compared with Rs. 3·55 earned by males. It was only Rs. 1·75 for children. The minimum wages officially fixed approximately corresponded to these levels of earnings, which implies government support to discrimination. We must, in addition, take note of the fact that the laws fixing minimum wages for agricultural labour are never properly enforced in the slack seasons.

Table 6.03—Wage Rates

Worker	Average wage rate per day worked* (1969-70 to 1971-72)	Minimum wage fixed for ordinary agricultural operations by the Government of Andhra Pradesh in 1974**
1	2	3
Male Worker	Rs. 3·55	Rs. 2·25 to 4·00†
Female Worker	Rs. 2·32	Rs. 2·00 to 3·00†
Child Worker	Rs. 1·75	Rs. 50% of wages fixed for adults†

Source : (†) Study of Incomes, Savings and Investments of Selected Cultivator and Labour Households : Combined Report for years 1969-70 to 1971-72, Agro-Economic Research Centre, Andhra University, Waltair.

(**) Minimum Wages Legislation for Agricultural Labour : A Review by G. Parthasarathy and G. Dasaradha Rama Rao, Economic and Political Weekly, Vol. X, No. 39, Review of Agriculture, September 27, 1975.

(*) (1) Minimum Wages are fixed operation-wise. Digging, Stacking, Threshing and Ploughing form one group with the highest wage. Sowing, Transplanting and Harvesting fall into the intermediate category Lowest wages are fixed for Weeding.

(2) Taluks of the State are grouped under 3 zones depending mainly upon the extent of irrigation, assured water supply and also current levels of market wages.

Possibly there is also discrimination in the labour market on grounds of caste and community. Perhaps this does not exist to a noticeable extent in the market for unskilled manual labour, but it may exist in the market for land (lease transactions).

(d) Low Wage Rates

The real wage rates are a crucial factor in the situation of households below the poverty-line. It is not unnatural to expect that the daily average real wage would be near or above the level

sufficient to provide a non-cultivating labour household with minimum income needed, assuming that the workers in the household gets reasonably full employment and the work participation rates remain unchanged. But, as the supply of labour is always in excess of demand for most part of the year, this expectation is rarely realised.[8] Custom and convention seem to stand in the way of ensuring subsistence wage to the labour households. As shown in the following table, the gap between household income, calculated at the daily average wages of Rs. 3·55 earned per adult male worker, and the poverty line income came to Rs. 529 per year, if adult workers only are taken into consideration. If both adult and child workers are taken into account the gap was reduced to Rs. 369 per year.

Table 6.04—Wages Earned and Poverty-Line Income (Per Household) for Agricultural Labour Households

1.	Average size of household	4·18
2.	Average number of workers (55%) (Males 31%, females Females 31%, Children 38%)	2·30
3.	Average number of workers in adult units (61.1%)	1·40
4.	Average number of adult workers only in adult units (100% and 60% participation rates for males and females respectively)	1·25
5.	Average rate of wages earned per adult unit per day	Rs. 3·55
6.	Average wage income per household per year of 300 work-days	
	a. Adult workers only (Rs. 3·55 X 1·25 X 300)	Rs. 1331
	b. All workers (Rs. 3·55 X 1·40 X 300)	Rs. 1491
7.	Poverty line income per household per year (Rs. 445 X 4·17)	Rs. 1860
8.	Gap between poverty line income and average wage earned per household per year	
	a. Adult workers only	Rs. 529
	b. All workers	Rs. 369

(e) Caste Hierarchy

In the context of the Indian Village the relationship between caste and poverty has a special significance.[4] One might expect a very close relationship because the families belonging to the lower level castes in the traditional caste hierarchy are also families which are wholly or mainly dependent on unskilled manual labour and wages for livelihood. The supply of labour from these castes generally tends to exceed demand while the opportunities available to them to migrate to urban areas in search of better paid occupations are very limited.

The analysis of the survey data however reveals that the relationship between caste and poverty is not a simple and straightforward relationship to establish, although the incidence of poverty is relatively high among the households belonging to the middle level and lower castes as shown in the following table.

Table 6.05—Caste Composition (Based on 3 years Study)

Caste	Cultivator Households			Agricultural Labour Households		
	BPL	APL	Total	BPL	APL	Total
1	2	3	4	5	6	**8**
(A) Higher Level Castes (%)	40·56	59·44	100·00	100·00	—	100·00
(B) Middle Level Castes (%)	63·92	36·08	100·00	81·97	18·03	100·00
(C) Lower Level Castes (%)	75·00	25·00	100·00	69·77	30·23	100·00
Total : (%)	51·00	49·00	100·00	80·00	20·00	100·00

N.B. : BPL : Below Poverty Line.
APL : Above Poverty Line.

The incidence of poverty was highest among the agricultural labour households who belong mostly to the middle level or lower level castes, and who do not own any land. One must not, howe-ever, ignore the fact that the incidence of poverty in the higher level castes was not insignificant. Attempts to identify specific caste groups as poverty target groups therefore bristles with difficulties.[5] The only caste group which can strongly claim this status is the group of lower level castes which includes mainly Harijans.

(f) Distribution of Land Rights and Access to Modern Inputs and Credit

In explaining the low earning power of cultivator families (small and marginal farmers), we have to take note of several factors. The choice of cultivation by a family restricts to some extent the opportunities for mobility (both occupational and spatial), and may not also bring adequate return to family labour used in cultivation on account of one or more of the following factors, *viz.*, small size of the holding, high rents on leased-in lands, lack of access to modern inputs and credit, and risks and uncertainities in farming business. Inequalities in the distribution of land and other productive assets are obviously an important factor in explaining the low earning power of cultivators below the poverty-line. Recent literature on small and magrinal farmers has brought out much evidence to show that the services of input and credit supply agencies do not reach them adequately.

The distribution of operational holdings and the incidence of tenancy have been extensively dealt with in Chapters III and IV, and the relevant facts are summarised in Table 6.06. The smallness of the operated holding of the poor households is brought out clearly by the fact that income from cultivation (profit on cost A_2 basis) was Rs. 310/- per household and constituted only 12 to 14% of the poverty-line income, and that too, inspite of the fact that the operated area was wholly irrigated and the intensity of cropping was very high. Of course one of the important factors contributing to the low farm business income is the exhorbitant rate of rent paid on leased-in lands which came to Rs. 661 or more than 31% of the farm output and more than two times

the farm business income. The analysis of survey data thus clearly brings out the nature of handicaps faced by the poor cultivator households on account of the small size of the operational holding and exploitative tenure.

Table 6.06—Size of Operational Holding, Costs and Profits on Cost A_1 Basis and Factor Shares in the Farm Output.
(Based on 3 years average)

Item	Cultivator households		
	Below Poverty Line	Above Poverty Line	Total
1	2	3	4
I (a) Size of Operational holding (Per household) (Hectares)	0·87	2·61	1·73
(b) Of which leased-in area (Hectares)	0·54	0·46	0·50
(c) Leased-out area in owned area (Per Household) (Hectares)	0·01	0·38	0·20
II (a) Costs of fertilisers and Manures—Per Hectare (Rs.)	360	553	426
(b) Cost A/—Per Hectare (Rs.)	1293	1818	1683
(c) Profit on Cost A/ Basis—Per Hectare (Rs.)	1116	1858	1670
III Factor shares in the total farm output—Per household (Rs.)			
Total Farm Output	2105 (100·00)	9590 (100·00)	5809 (100·00)
Of which share of			
Material Inputs	325 (15·43)	1244 (12·97)	780 (13·43)
Wage Labour	280 (13·30)	1384 (14·43)	826 (14·22)
Land Rent	661 (31·40)	616 (6·42)	639 (11·00)
Land Taxes	40 (1·90)	173 (1·80)	105 (1·81)
Others	489 (23·23)	1971 (20·55)	1242 (21·38)
Profit (Cost A_2 basis)	310 (14·74)	4202 (43·83)	2217 (38·16)

N.B. : Figures in brackets indicate percentages to total farm output

We have pointed out earlier that the region is fairly homogeneous in respect of not only the soil, climate and irrigation facilities but also in respect of adoption of new technology. This implies that the handicaps faced by the poor farmers in regard to access to modern inputs and credit are not as severe as in respect of holding size and tenure. However, the cultivator households below the poverty-line have not been able to adopt the new technology to the same extent as the households above the poverty-line. We find that the quantity of modern inputs applied per hectare and yield rates were comparatively high for the households above the poverty-line. The social aspects of the agricultural system are thus obviously of greater significance for explaining poverty than the technological aspects.

(g) Drain of Economic Surplus —Supply and Demand for Labour

The magnitude and intensity of poverty in a rural region can also be viewed in the context of overall rate of economic growth of the region, and the composition of output. A certain balance in the development of various sectors of activity is an important factor. If there is rapid technological advance in agriculture in the region one would expect relatively low incidence of poverty. But this may not be achieved for two important reasons. Firstly, the level of productive investment in the region may be too low on account of drain of economic surplus[7] and its unproductive utilisation to some extent within the region. Secondly, the out migration of labour force may be too small. These factors lead to a serious imbalance between the overall supply and demand for labour. The nature of technological transformation in agriculture and other sectors and the pattern of investments may also create serious imbalance between supply of labour from the various socio-economic groups below the poverty-line who are in need of employment, and demand for labour. When technological change in agriculture is of labour displacing type, it reduces the demand for labour, depresses the wage rate and keeps down the relative share of wages in the total farm income as compared with the share of rents and interest. The unequal distribution of incomes will also affect the demand for labour indirectly by depressing the demand for locally manufactured consumer goods.

In Chapter V, we have already discussed the nature and drain of economic surplus from the taluk and the extent of under-employment among the various categories of cultivator and agricultural labour households and in the taluk as a whole. While the estimates of employment and underemployment cannot be treated as very exact, the gap between labour time available and labour time used was as high as 37·3 %, indicating serious imbalance between supply and demand (*See* Table 6.07). Despite the high saving income ratio of 0.18 and the high proportion of economic surplus to total income amounting to 26·7%, productive investment within the taluk has amounted to only 25·6% of the economic surplus (*See* Chapter V).[8] As already mentioned, the large drain of capital from the taluk has to be attributed principally to the following factors : (1) limited scope for investment in fixed capital in agriculture and other sectors, (2) the high attraction fo money lending, (3) the profitability of investments in urban areas, and (4) the poor rate of public investment in essential srevices such as health, supply of drinking water, education, transport, etc., which discourages the choice of villages for permanent residence and investment by elite groups in society.

Table 6.07—Export of Economic Surplus and Underemployment
(In crores)

1.	Total income of the taluk (including land taxes, and rents and remittances, *see* Table 5·04)	22·64
2.	Total disposable income	20·29
3.	Total savings (households)	3·70
4.	Economic surplus	6·05
5.	Export of surplus of capital	3·34
6.	Savings income ratio	0·18
7.	Proportion of surplus to total income	26·7%
8.	Proportion of export of surplus to total income	14·75%
9.	Employment (in million man-days) :	
	(a) Labour time available	45·1
	(b) Labour time employed	28·3
	(c) Surplus labour time available	16·8
	(d) Surplus labour time as % (a)	37·25%

The use of the tractor for cultivation has become extensive in the taluk. The tractor hire charges amounted to 5·6% of the total cultivation expenses the proportion being higher for the cultivator households above the poverty-line. No attempt is made here to measure the effect of tracterisation on demand for labour in the taluk.[9]

The data pertaining to distribution oi incomes and consumption patterns reveal that the cultivator households above the poverty-line received Rs. 11·32 crores out of the total (disposable) income of Rs.20·29 crores or 55·79% of it and their total consumption expenditure amounted to 68·0 per cent of the income. Their expenditure on cereals, pulses and milk and milk products was of the order of 40 per cent of total expenditure and it is reasonable to assume that only a small part of the remaining expenditure was spent on locally manufactured goods and services. There are no data available to further analyse the implications of the income distribution and consumption patterns on the demand for labour in the taluk.[10]

To the extent that export of economic surplus takes place for financing productive investments it certainly generates more income and employment in the areas to which it is exported. Further the need for export of a part of the economic surplus originating in the agriculturally rich areas to finance the development of other rural areas, industries in urban areas, infrastructure such as power and transport, and Governmental activities cannot be ignored. No economic development is possible without such capital transfers. But the point made out here is that the export of economic surplus constitutes a 'drain' in a pejorative sense because a substantial part of it goes to finance irrational and unjust urban growth, luxury house building, manufacture of luxury goods and investments of a similar nature in urban areas. From this point of view, the income and employment effects of the flow of economic surplus from the rich agricultural areas to urban areas will not lead to any reduction in poverty and inequalities either in the rural areas where surplus originates, or in urban areas to which it is destined.

6.02. Relative Importance of the Causal Factors

It is difficult to assess the relative importance of the factors discussed above as explanatory factors or causes of poverty. A more detailed statistical analysis, supplemented by specially designed new surveys, and a dynamic method of analysis, are required to determine the relative contribution of these factors to the poverty of various categories of households. We have also to bear in mind in this connection that the relative importance of the factors will vary much among the poorest, the very poor and the marginally poor categories of households.

Dynamic analysis of the poverty problem is rarely attempted, partly on account of lack of historical studies and studies of regional economic development. Poverty profiles at a few points of time and detailed economic histories of districts and regions would be of great value for this purpose, at least for qualitative assessment of changes occuring in the poverty condition. Case studies and life histories of families would be again of great value in revealing the trends in poverty profiles and relative importance of various causal factors. Excessive growth of families in numbers, subdivision and fragmentation of rights in land, lack of educational opportunities for children, wasteful expenditures on ceremonies and indebtedness, etc., will be some of the factors to consider in analysing generational change in fortunes. The one point of time study on which we have relied does not tell us much about trends and changes, as to how many of the poor were also poor a generation ago or half a generation ago, and how many of them had been pushed below the poverty-line. Our survey, therefore, can lead to only limited insights and tentative hypotheses. One might venture however to draw the conclusion that there are two dominant factors which explain the mangitude and intensity of poverty in the area. One is inadequate rate of economic growth and diversifications of activities caused by export of a large proportion of the economic surplus of the region to outside areas. The other factor is the extremely uneven distribution of land which is an extremely scarce resource of the taluk's economy.

6.03. Elements of anti-poverty strategy —prognosis

The next step in our analysis is to move from the diagnosis of the existing poverty condition in the taluk to prognosis —to borrow a medical terminology. This is a more difficult step because we do not have enough data to assess the rates of change in the near future in the relevant variables. The following observations are to be therefore taken more as speculative in nature than as firm empirical observations.

The rural population of the taluk in 1971 was 3·58 lakhs and assuming it will grow at the same rate as between 1961 and 1971, it will reach the figure of 4·12 lakhs by 1981. The working population of the taluk may be expected similarly to increase from 1·72 lakhs to 1·98 lakhs. This means that during the decade 1971 to 1981 additional employment will be needed for 26·2 thousand workers, after making allowance for the same rate of out-migration as in 1961-71. The details are shown below :

Table 6.08—Population and Work Force

	1961–71 (Compound growth rate)	1971	1981 (Projected)	Increase
Total Population	14·3	357,707	412,320	54,613
Total Workers :	14·3	171,595	197,790	26,195
Males	14·4	105,772	122,030	16,258
Females	14·1	50,547	58,143	7,596
Children	14·4	15,276	17,624	2,348

We can confidently say that the farmers of the taluk will continue the process of modernisation of agriculture and increasing productivity. The status of agriculture in these respects in 1971 has left enough scope for further intensive cultivation based on the new H.Y.V. seed-cum-fertilizer technology, although the scope for extending cultivation to culturable waste and permanent fallows and for further extending irrigation facilities is rather

limited. According to the Taluk statistics of land utilisation, additional land available for future cultivation is small as shown in the table below :

Table 6.09—Land Utilization in the Taluk and the District in 1971–72.
(*In acres*)

Item	Ramachandrapuram Taluk	East Godavari District
1	2	3
Total Geographical area	184961 (100·00)	2673288 (100·00)
Of which :		
Permanent pastures	3724 (2·01)	81974 (3·07)
Culturable waste	6917 (3·74)	172187 (6·44)
Permanent fallows	6740 (3·64)	35454 (1·33)
Net area sown	136351 (73·72)	1034466 (38·70)
Others	31229 (16·89)	1349207 (50·46)

Source : Basic taluk statistics, Andhra Pradesh, 1972-73, Bureau of Economics and Statistics, Government of Andhra Pradesh, Hyderabad

(Figures in brackets indicate the percentages to total geographical area).

As regards irrigation facilities, as pointed out in the earlier chapters, water facilities are already available in the taluk for raising wet crops in both the Kharif and Rabi seasons for 85 to 90% of the net sown area. There is still considerable scope for substantial increase in the areas under H.Y.Vs. of paddy which is the major crop of the taluk (*see* Table 6·10). The scope for any other significant change in the cropping pattern is limited. It is reasonable to expect that the existing potential in agriculture would be fully utilised in the course of the present decade.

Table 6.10—Area Under H.Y.V. Paddy in the Taluk and the District

	1969–70 to 1971–72 (Average)* (Taluk) (Per Holding)	1971–72 East Godavari District** (Total)
1. Area under Paddy (Hectares)	2·64	356026
Of which :		
2. Area under H.Y.V. (Hectares)	0·73	108082
3. 2 as % of 1	27·7	30·4

* **Source :** I.S.I. Studies.

** **Source :** Basic Taluk Statistics, Andhra Pradesh, 1972-73, Bureau of Economics and Statistics, Government of Andhra Pradesh, Hyderabad.

The expectation of development potential in the activities allied to agriculture like dairying and household industry will add considerably to the incomes of the poverty households. There is large scope for further investment in dairying by the cultivator households below the poverty-line. The non-cultivating agricultural labour households, with the present high rates of participation in work of both male and female adults, will however find it difficult to take up dairying as a major secondary occupation. The survey has brought out clearly the distinction between the two categories of households in this respect. The proportion of income from dairying in the total income from all sources is estimated as 1·0% for the non-cultivating agricultural labour households as compared with 13·0% for the cultivator households below the poverty-line and 9·9% for those above the poverty-line. As regards household industry, its expansion is tied too closely of traditional skills and castes, and the scope for non-cultivating agricultural labour households to move into household industry limited.[11] The scope for expansion of small scale industry (factory type) in the villages as against towns and cities depends on State policies. The impact of any possible expansion of this sector of the village economy of the taluk on its poverty profile, will be however small. We do not therefore expect that the possible expansion of activities allied to agriculture and in the non-agricul-

tural sector will make a significant difference to the income distribution in the taluk.

Let us now examine the issue in greater detail, whether the expected growth in the agricultural and non-agricultural sectors in the near future will make enough difference in the picture of poverty and income inequalities in the taluk. An attempt is made to indicate broadly the additional income and employment that would be generated by covering the entire paddy area under the H.Y.Vs. and to what extent the households below the poverty-line would benefit by it. (*See* Table 6.11).

Table 6.11—Operational Holding, Area under H.Y.V. and T.V. Paddy and Yield Rates
(Average of 3 years 1969–70 to 1971–72).

Item 1	Below Poverty Line 2	Above Poverty Line 3	Total 4
1. Total area of operational holding (Hectares) (Per Household)	0·87	2·61	1·73
2. Gross cropped area (Hectares) (Per Household)	1·77	5·47	3·60
of which :			
Area under Paddy (Hectares)	1·48	3·89	2·63
(i) H.Y.V. Paddy (Hectares)	0·30	0·98	0·63
(ii) T.V.Paddy (Hectares)	1·18	2·91	2·00
3. Total Income from cultivation (Rs.) (Per Household)	310	4202	2217
4. Total Income from all sources (Rs.) (Per Household)	1366	6515	3889
5. Poverty-line Income (for 1971–72 only) for the household (Rs. 445 X average size of household)	2603	2532	2554
6. Yield Rate of H.Y.V. Paddy (Per Hectare) in 1971-72 (Kgs.)	4425	4865	4851
7. Yiled Rate of T.V. Paddy (Per Hectare) in 1971-72 (Kgs.)	3023	3268	3246
8. Difference in Yield per Hectare between H.Y.V. & T.V. (Kgs.)	1402	1597	1605
9. If area under T.V. is put under H.Y.V. the extra yield that comes (Kgs.)	1654	4647	3210
10. Value of the extra yield at Rs. 53 per quintal (Rs.)*	877	2463	1701

*Farm Business Income (Net Income on Cost A_2 basis) will come to about 12 to 25% of this amount).

The average area of the operational holding came to 0·87 hectares and the gross cropped area came to 1·77 hectares for the cultivator households below the poverty-line. The area under traditional paddy was 1·18 hectares as compared with 0·30 hectares under H.Y.V. paddy. The cultivator households above the poverty-line have an operational holding of 2·61 hectares per household, gross cropped area of 5·47 hectares, 2·91 hectares under traditional paddy and 0·98 hectares under H.Y.V. paddy. The yield rates of traditional and H.Y.V. paddy during the year 1971-72 and an average price of Rs. 53 per quintal are taken for the purpose of calculating additional income from covering the entire paddy area under H.Y.V. As pointed out in Chapter I, the year 1971-72 is an extra-ordinarily good year for the farmers and the yield rates are very high. There is a difference of 14 to 16 quintals per hectare in the yield between H.Y.V. paddy and traditional paddy. There is also a difference of about 2 quintals per hectare in the case of traditional paddy and 4 quintals per hectare in the case of H.Y.V. paddy as between the households below and above the poverty-line. As Table 6.11 shows, even under the assumption of the high crop yield rates of 1971-72, 100% coverage of area under paddy by the H.Y.Vs. will not carry the average income of the cultivator household below the poverty-line to above the poverty-line income of Rs. 2603 per household. The extra farm-business income arising from the complete coverage of paddy area under H.Y.V. seeds and New Technology (say 25% of Rs. 877 = Rs. 220) will still fall very much short of the income gap per household for the year 1971-72 equal to Rs. 2603—1366 = 1237. The poorest and the very poor among the cultivator households will remain below the poverty-line and a small proportion of the marginally poor cultivator households are likely to be pushed above the poverty-line. Obviously the benefit of extending the area under H.Y.Vs to 100% of the area under paddy will go mostly to the cultivator households above the poverty-line.

As shown in the Table 6.12, the additional labour input required for extending cultivation of H.Y.V. paddy to the entire area under paddy, at 32 man-days per hectare, is estimated as 64 man-days per household (37·76 man-days for the cultivator household below the poverty line and 93·12 man-days above the

poverty line). It is reasonable to assume that the extra demand for labour input on the farms of households above the poverty line will be wholly met from hired labour, its supply coming from the households below the poverty-line and from the non-cultivating labour households. It is also reasonable to assume that about 70 per cent of the additional demand for labour input on the farms of households below the poverty-line will be met from hired labour. The additional demand for labour input arising from extending H.Y.V. paddy cultivation to the entire area under paddy will then come to only 13·71 per cent of the total number of man-days of unemployment in the taluk. The additional demand for hired labour comes to only 19·78 per cent of the total number of man-days of unemployment for all the households below the poverty-line. Per worker it comes 20·94 mandays as against 105·86 man-days of unemployment. Per household it comes to 40·64 man-days as against 205·50 man-days of unemployment.

Table 6.12—Additional Employment from covering 100 Percent Paddy Area under H.Y.V.Seeds.

	BPL Households	APL Households	Total Hhouseholds
1. Additional Labour Input per Cultivator Household	37·76	93·12	64·00
2. Additional total demand for Labour Input (Man-days)	682776	1617773	2300550
3. Additional total demand for hired labour	477943	1617773	2095717
4. **Additional Employment :**			
(a) Per Worker	20·94	—	20·94
(b) Per Household	40·64	—	40·64
(c) % of total unemployed man-days	21·71	—	13·71

Table 6.13—Additional Income and Employment Needed to Ensure a Threshold Income (Per Head Per Annum) for those Households Below the Poverty Line (Based on 3 Years Average).

Per Capita Income-Groups (Rs.)	Income gap per Household		Income Gap Per Adult Male Unit		Employment Gap
	No. of households below the poverty line	Income gap per household (Rs.)	No. of workers in adult male units (Per household)	Income gap per adult male worker (Rs.)	Employment gap per adult unit (Man-days)
1	2	3	4	5	6
		Cultivator Households			
Upto 250	73	1538	1·80	854·02	143·64
251—Poverty Line	77	572	2·01	284·96	120·47
Total	150	1042	1·91	546·57	131·12
		Agricultural Labour Households			
Upto 250	37	1236	1·65	748·70	94·96
251—Poverty Line	58	403	2·15	187·23	87·92
Total	95	728	1·96	371·67	90·23

An attempt is also made to estimate the income gap per household and per adult male worker and also the employment gap per adult made worker among both the cultivator households and agricultural labour households below the poverty-line. (*See* Table 6.13). It is not intended to treat these estimates as very precise but the figures give a clear indication of the magnitude of the problem. Providing full employment for all the workers in the households below Rs. 250/- (both the cultivator and non-cultivator labour households) the average wage rate remaining the same as in the period 1969-70 to 1971-72 (*viz.*, Rs. 3.50 approximately) will still keep them below the poverty-line. The problem of these households constituting 48·7% of the total number is an intractable problem because of the large excess of income gap over the possible extra earnings from full employment per adult male worker. In the case of households in the income group below the poverty-line but above Rs. 250/- however provision of full employment will enable some of them who are near the poverty line to cross it but they will still be in the category of marginally non-poor.

We cannot, therefore, expect that in the near future, further expansion and technological transformation of the agricultural sector and the expansion of other sectors will provide a solution to the problem of under-employment and poverty in the taluk. Perhaps the income distribution may actually become worse as a consequence, since the land ceilings legislation of the State is not designed to acquire much surplus land for redistribution, and unequal distribution of land will persist.

6.04. Outline of Strategy

We will now focus our attention on certain relevant strategies for the elimination or substantial reduction of rural poverty in the taluk. It is not within the scope of this study to review development strategies generally, nor to suggest a development plan for the taluk with clearly defined objectives, investment priorities, production targets and income redistribution measures. What is attempted is a modest and limited exercise to outline the principal features of a relevant strategy arising from our earlier analysis in the present and previous chapters.

The findings of the earlier chapters may be briefly recapitualted. Despite the progress achieved in the technological and production base of the agricultural sector, the rural area of the taluk is characterised by high degree of abject poverty and grave inequalities in the distribution of incomes, land and other productive assets. Taking the average period of the 3 years, 1969-70, 1971-72, the study has revealed that the incidence of poverty came to 51% among the cultivator households, to 80% among the agricultural labourers and to 65% for the taluk as a whole. The households characterised as the poorest and the very poor constituted a substantial 48% of the total number. Estimates of income for the taluk as a whole revealed that the households above the poverty-line constituting 35%, received a total income of Rs. 13·65 crores or 67%, as against the households below the poverty-line constituting 65% and receiving only Rs. 6·64 crores or 33% of the total income. The economic surplus generated in the taluk is substantially high, and almost all of it arises from the cultivator households above the poverty-line. This surplus should be adequate to ensure a continuing high rate of growth of the economy and adequate employment opportunities for the labour force, and from this point of view, there is really no justification for the pesistence of mass poverty in the taluk. We have also tried to identify the causes of poverty in the taluk. The diagnosis of poverty has brought out one conclusion clearly. The major factors contributing to mass poverty are the low overall growth rate of the rural economy as a consequence of regular export of a substantial proportion of the economic surplus to outisde, leading to persisting gap between supply and demand for labour, and the extremely skewed distribution of land and other productive assets.[12] The analysis of the development potential and impact of full utilisation of labour and full adoption of H.Y.V. technology on the condition of poverty and inequalities in taluk, provides no basis for optimistic conclusions.

In the light of what has been said above, it appears to us that any development strategy for the rural area of the taluk, if it is to have really a major impact, should consist of four major elements :[13]

(1) There is urgent need to develop the industrial sector in the region, on a priority basis, as a viable and surplus generating activity complex on the basis of a well-conceived regional development plan and to provide educational, transport and other facilities for the work force in the rural area to take advantage of such industrialisation. The district may be taken as a suitable region for the purpose, or the natural sub-regions consisting of the delta area upland area and the tribal area may be taken separately for planning purposes. Attempts have to be made to identify new growth centres and market-cum-service centres besides the existing towns and cities, and develop them with a view to absorb not only this urban labour surplus but also the rural labour surplus, through proper provision for training in skills and planned migration.

In this connection it is necessary to note that dairying as an industry goes with cultivation and the import of any substantial increase in dairying may be small on the non-cultivating agricultural labour households. In the case of professions and services, and household industry, they continue to be too closely associated with caste, and the caste barrier to occupational mobility at the village level will have to be taken into account in increasing investment in these sectors, apart from the limitations of market size. Investment 'n small industry is more likely to be concentrated in the urban areas within the taluk or outside. These considerations further emphasise the need for training in skills and planned migration of the rural labour surplus to urban areas and other identified growth centres and market-cum-service centres in the region.

(2) There is a strong case for reinvestment of a substantial part of the economic surplus of the taluk within for promoting further growth of agriculture, viable household and small-scale industry and rural housing. Well designed policy measures have to be adopted to limit the export of surplus to outside the district and to discourage its utilisation for wasteful and unproductive uses.

(3) It is of utmost importance for the government to play a more positive and purposive role in accelerating public investment in the area in the following fields :

(a) Family Planning, specially directed to the poverty group with a view to ensure not only small families but also the survival and healthy growth of the children. The impact of such public investment on both resource productivity and welfare of the community will be immense.

(b) Investment in compensation payments for the poor house, holds with a view to prevent drop-outs of children in the schools and appropriate reorientation of school education. In the long run, perhaps, the only means for a poor family to be pushed clearly above the poverty-line is to have atleast one child in the family with school or college education employed in a skilled or technical job.

(c) Improving the infrastructure in the rural area relating to protected water-supply, public health and medicine, and power and fuel for domestic consumption, with a view to encourage investment in modern residential construction. The Rural Works Programmes or Employment Schemes which are now mainly designed for creating additional employment in the rural areas, should be suitably restructured so that these programmes will form a part of the improvement of rural infrastructure. The wage rates, both the levels and trends in them, are such that perhaps for a generation to come the contribution to the well-being of the poor households must come from the government by way of free supply of public services (general education for children, training in industrial skills, subsidised housing, protected water supply, public health, medical service, etc.)

(d) Investment in agricultural research and extension. Agricultural development in the taluk has already reached a high stage technologically, and further progress depends much on effective water management and drainage, protection of crops against floods, control of posts and crop diseases, raising three crops in a year on the fields instead of only one or two, facilities for quick harvesting and drying of crops, and proper storage. Development of suitable technology for these purposes has to be given priority.

(e) Intensified financial and technical support, buttressed by an adequate scheme of subsidies, has to be given to the weaker sections in agriculture and other sectors, with a view to reduce

under-employment, diversify occupations, improve technical efficiency and increase earnings. The operations of the market economy are unlikely to achieve these results, and in fact constitute a set of barriers to progress in this direction.

(f) The government should find ways and means of mobilising a considerable part of the economic surplus of the taluk for these purposes in addition to the small amount of land tax collected.

4. There is dire need for effective implementation of land reforms, particularly protection of tenants against rack-renting; and enforcement of minimum wage laws. The land ceilings legislation in force in the State is not expected to have any major impact on the redistribution of landholdings. A part of the surplus land acquired by the government may be utilised for the benefit of the marginal cultivators and landless agricultural labourers as provision for house sites. Abolition of tenancy may lead to complications because it runs counter to the policy of encouraging migration to urban areas in search of better paid occupations. Radical land reform for redistribution of land may fulfil the function of substantially mitigating poverty in the taluk, but its political feasibility can be debated.

It is difficult to say to what extent the operation of the power structure — the political process—in the rural society, dominated as it is by the rich farmers and their allies, will permit radical reorientation of the strategy for attack against poverty and enable the government to mobilise enough surplus for developmental and redistributive purposes. It is also difficult to say to what extent the administrative machinery in the rural area—the local bureaucracy—will resist pressures from the richer classes, and will effectively function in the implementation of anti-poverty programmes.

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9. " Any drastic redistribution at the present level of incomes, even if it were feasible, is bound to make the mobilisation of savings for investment far more difficult. Moreover, such a measure will reduce the incomes of skilled workers, supervisors, managers, entr-

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CHAPTER II :

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2. G. PARTHASARATHY AND G. DASARADHA RAMA RAO. *Employment and Unemployment of Rural Labour and The Crash Programme, A Study of West Godavary District*, Andhra University, Waltair, 1973.

Parthasarathy's estimate of poverty was 86% among landless labour households and 63% among landed labour households for 1971-72, on the basis of Rs. 450 as the poverty level of income.

3. A. K. SEN, *Poverty Inequality and Unemployment : Some Conceptual Issues in Measurement* and also I. J. BHATTY, *Inequality and Poverty in Rural India* in T. N. Srinivasan and P. K. Bardhan, (*Ed.*), *Op. cit.*, pp. 67–82 and pp. 291-336.

4. For an All India picture of rural poverty, See B. S. MINHAS, *Rural Poverty, Land Distribution and Development Strategy : Facts* in T. N. Srinivasan and P. K. Bardhan (*Ed*)., *op. cit.*

5. E. P. Da Costa divides the poverty households into three Rings of Poverty.

Household Category		*Monthly expenditure Class per Capita [Rural area] 1963-64*
Severe destitution		Rs. 0.11
Destitution	..	Rs. 0.13
Poverty	..	Rs. 0.15

The proportions roughly correspond to those of our categories

E. P. DA COSTA, *A Configuration of Indian Poverty*, in A. J. Fonseca (Ed.), *op. cit*, pp. 52–53.

6. A. B. ATKINSON, *On the Measurement of Inequality in Wealth, Income and Inequality* (Ed.) Penguin, 1973.

A. K. SEN, *On Economic Equality*, O.U.P., 1973.

ECAFE, *Distribution of Income and Wealth in India*, Economic Survey of Asia and the Far East, 1971.

Reserve Bank of India, *All India Dept. and Investmental Survey.* 1971-72, Statistical Tables (AP) and Assets of Rural Households as on June, 30, 1971, Bombay, 1976.

A.E.R. CENTRE, WALTAIR, *Agricultural Development in A.P.* 1950–51 *to* 1973–74, Oct. 76, Ch. V : Employment and Income Distribution.

I. J. NAIDU, *All India Report in Agricultural Census*, 1970–71, Government of India, New Delhi, 1975.

G. THIMMIAH, *Inequality and Poverty in Karnataka* (A Socio economic profile), The Indian Economic Journal, Special Conference No. Nov. 1977, Vol. 25, No. 2.

Chapter IV

1. For detailed analysis of data according to holding size groups, see the I.S.I. Studies (A.E.R. Centre), Waltair, *op. cit*

2. For detailed analysis of the Conceptual problems and estimation procedures, See A.E.R. Centre, *I. S. I. Studies, Combined Report* 1969-70 *to* 1971-72, Appendix, Waltair, Feb. 1976, pp. 1-39.

3. For analysis of the Socio-economic characteristics of cultivators and the Agricultural labour households in the West Godavari District which is comparable to the East Godavari District in all most all respects, see G. Parthasarathy and G. Dasaradha Rama Rao, *op. cit.*

G. PARTHASARTHY, *West Godavari – A.P. in Changes in Rice farming in Selected Areas of Asia International Rice Research Institute, Manilla,* pp. 44-70.

Chapter V :

1. The estimate of income of cultivator households is net of pay of rent on leased-in lands and land tax (*i.e.*, on cost A_2 basis). It amounts to 'disposable' income, See Section 5.05.

2. Dissaving by the households below the poverty line does not imply negative contribution to the economic surplus of the taluk or to the marketed surplus of agricultural produce. See Note No. 8, Chapter VI.

3. This is the excess of net income from all sources without deducting rents, taxes and remittances, over consumption. 'Wasteful and unproductive' use of 'rent and interest surpluses' received by the upper income groups (big land owners, and cultivators and money lenders etc.) is common both under feudal and capitalist farming. But this is not taken into account in calculating the economic surplus.

4. The assumptions made in regard to the three last items in the Table 5.06 are arbitrary to some extent. Purchase of gold and silver ornaments is treated as investment.

5. The conceptual issues in calculating work force and unemployment and underemployment are extensively discussed in the literature, see especially :

RAJKRISHNA, *Unemployment in India, Economic and Political Weekly*, 3 March, 1973.

A. K. SEN, *Employment, Technology and Development*, O.U.P., 1973.

Report of the Committee of Experts on Unemployment Estimates, Planning Commission, Govt. of India, 1970.

K. N. RAJ, *Rural Unemployment in India, An Analysis with reference to conceptual and measurement problems,* EPW, Vol IX, Aug 1977

G. PARTHASARATHY and G. DASARADHA RAMA RAO, *Op.cit.*, Chapter VII.

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